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ABSTRACT

This thesis reports on the research of 25 plants, used as herbal remedies since the 1800s by the author's Native American ancestors (the Day family) and the Cherokee tribe. The plants were identified in four state parks in southwestern Indiana. Information sources included the research literature, articles on Cherokee herbal remedies, and interviews with Cherokee elders and medicine men. The purpose of the project was to develop a Cherokee herbal manual and curriculum guide related to plant identification and the herbal remedies made from these plants. Following an introduction to the purpose and methodology of the study, a literature review covers such topics as traditions, plant healing properties, the use of plants by early settlers and Native Americans, written records, plant medicinal myths, plant selection methods, the role of the medicine man, and Cherokee history and traditions. The third chapter includes information on plant identification, history, Cherokee uses, Day family uses, medical research, and sources consulted. Plants researched include black cohosh, bloodroot, boneset, common or great burdock, catnip, comfrey, dandelion, garlic, goldenseal, mayapple, milkweed, mistletoe, partidgeberry, pennyroyal, senna, skullcap, snakeroot, spikenard, St. Johns wort, common bearberry, white willow, wild black cherry, witch hazel, yarrow, and yellow root. The fourth chapter presents a curriculum guide for a 2-day workshop on plant identification, conservation, history, Cherokee uses, and current developments in herbal medicinal uses. The curriculum includes information on course evaluation; six lesson plans including objectives, equipment, materials, and procedures; and instructional materials needed for program implementation. The manual also includes charts related to plant identification, harvesting, and uses; preparation and storage of remedies; and terminology. Contains 105 references. (LP)

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ED 396 878

A MANUAL OF
CHEROKEE HERBAL REMEDIES:
HISTORY, INFORMATION, IDENTIFICATION, MEDICINAL HEALING

A Master's Thesis

Presented to

The School of Graduate Studies

Department of Health Studies

Indiana State University

Terre Haute, Indiana

U.S. DEPARTMENT OF EDUCATION
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McCloud I am grateful for their kindness, backing and friendship.

DEDICATED TO MY DAUGHTERS

Jennifer Jo Meyer and Amy Kay Meyer

It was their grandparents, great grandparents, and great great grandparents who inspired the writing of this manual. Without their love, help, understanding, and backing, I could not have completed it.

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ABSTRACT

Research of twenty-five plants, used as herbal remedies by the author's ancestors, especially her great grandfather, grandfather, and the Cherokees in the 1800's to the present, and found in the four state parks in southwestern Indiana, were identified, studied, and reviewed. Interviews were conducted with elders and medicine men of the Cherokee Nations. A checklist of twenty-five herbs was used to identify whether or not the Cherokees had currently been implementing any of these treatments. Chronicles of current medical research have been studied to ascertain if any of these uses have been being medically researched today. A manual has been developed which covered herbal background history, Cherokee uses, treatment values, plant identifications, current research experiments, and medicinal healing. A curriculum guide, plant identification chart, and overhead projector sheets of the plants have also been made using the information from the manual. These materials have had possibilities for use in a college health course, a workshop on medicinal uses of plants

and herbs, or a class for studying the culture and plant usage of the Cherokee Nations.

INTRODUCTION

INTRODUCTION

Medical treatment using herbs has been recognized as being older than man's intelligence. Such herbal treatment has been seen in animals' instinctive use of plants to help cure certain ailments. For example, a dog hunted a special grass to eat when it has become ill, a mother bear has dressed a wound on her cub with leaves, and a horse lacking vitamins and minerals has eaten certain plants and bark from trees (Weiner, 1972).

Today people have continued to use herbs with medicinal chemicals daily, usually without realizing the values of such plants. Herbal tea, a popular drink, has contained fluoride, a chemical used in preventing tooth decay. Coca-Cola was originally based on an herbal remedy used for headaches. Aspirin was created from two plants: white willow and meadowsweet. Often, however, even with these examples, lack of knowledge has prevented health professionals and health educators from teaching or supporting herbal healing. Nevertheless, the World Health Organization has estimated that two-thirds of the world's population has

depended on healing herbs for primary medicines (Castleman, 1991).

Tyler (1986) stated, "Folk medicine is worthy of scientific research: after all, scientists discovered morphine from opium poppy, digoxin from the foxglove, and ergotamine from the ergot fungus by observing the efficacy of ancient folk remedies."

STATEMENT OF THE PROBLEM

Research has been conducted to identify, study, and review the twenty-five plants found in four state parks in southwestern Indiana and the herbal remedies made from these plants that were used by the Cherokees during the period dating from the early 19th century and continuing to the present. A study has been made of the latest developments and usage of the identified plants and herbal remedies for Cherokee purposes, herbal background history, treatment values, medicinal healing, plant identification, and current medical research.

PURPOSE OF STUDY

The purpose of this study has been to develop a Cherokee herbal manual, including a curriculum guide and identification charts of twenty-five plants found

in the four state parks in southwestern Indiana and the herbal remedies made from these plants. These remedies have been used by the Cherokees and by the Day family during the nineteenth and twentieth centuries.

IMPORTANCE OF STUDY

Often, the educational and training backgrounds of health professionals, educators, and scientists have not included the history and importance of herb healing. Many professionals have been unfamiliar with the effectiveness of Cherokee herbal remedies and their significance. Yet, research has shown that a plant called St. Johns Wort inhibited the growth of the leukemia virus, the yew bark had potential to cure breast and ovarian cancer, and garlic has been effective in reducing cholesterol for heart disease (Castleman, 1991). Some of the common plants and herbs used by the Cherokee Nations, and found in the four state parks in southwestern Indiana, have been tested for medicinal chemicals to combat some modern day diseases. A manual has been needed that has identified and discussed Cherokee herbal remedies. Therefore, this manual will be beneficial, not only to the educational profession, but also to those in sociology,

in the sciences, and in health. Historical interest in Cherokee remedies has been worth recording, and this data has had the potential to develop into a college health course, a workshop on the medicinal uses and the importance of plants and herbal remedies, a specialized botany class, or a social science class studying the cultural heritage and plant usage of the Cherokee Nations.

DELIMITATIONS

1. This study has been limited to twenty-five plants and herbs found in the four state parks in southwestern Indiana. Specifically, these parks have included Harmonie State Park, Lincoln State Park, Pike County State Forest, and Harrison-Crawford State Forest.
2. Only Cherokee herbal remedies that were used by the Day family, ancestors of the author, have been studied. Since other American native groups also used plants and herbs, it was essential to limit this study to one Native American group.
3. The research has been limited to oral traditions provided by elders and medicine

men of the two Cherokee Nations that has been recorded. The two Nations have included Cherokee Village, North Carolina, and Tahlequah, Oklahoma.

4. This manual has utilized only research materials found in the institutions of higher learning and public libraries in Indiana.

ASSUMPTIONS

The researcher has assumed that the written research surveyed was valid and the interviews of the elders and medicine men have been honest and accurate. A manual has been developed that would enable a researcher to identify and discuss the twenty-five Cherokee herbal remedies and plants found growing in southwestern Indiana State Parks.

HYPOTHESIS

Information has been gathered on the identified twenty-five plants and herbs found in the southwestern Indiana state parks. These plants were used by the Cherokees as herbal remedies and have been discussed in an informative manual. This manual has been able to increase knowledge of the use of these identified plants and herbal remedies for the educational

professions, as well as for scientists and sociologists.

DEFINITION OF TERMS

1. Cherokee Nations has been used to refer to two distinct groups of Cherokees, located in two geographically different areas in the United States.
2. Medicine man has been the term given by the Cherokee people to a male who was specially trained in the use of herbs and spiritual guidance.
3. Elder has been used to refer to a Cherokee who had earned the respect of the village. This person was no longer responsible for the welfare of the village, but the nation sought this person's wisdom during future planning.
4. Herbs has referred to plants that have healing qualities or medicinal value (Castleman, 1991).
5. Herbal remedy has been used to refer to any use of an herb in the preparation of a medicine for the cure or prevention of an illness or disease.

METHODOLOGY

The materials that have been researched for the manual has included two components. First, a review of available research books and articles on Cherokee Nation herbal remedies used from 1850 to the present has been completed. Plants and herbs to be studied have been identified as those found in the state parks in southwestern Indiana. Those herbs have been used by the Day Family and the Cherokees for medicinal purposes. Since the Cherokee have used many different plants and herbs in their medical remedies, it was expedient to limit the study to only those plants and herbs found in the state parks of southwestern Indiana.

Second, oral traditions provided by Cherokee elders and medicine men of Cherokee Village, North Carolina, and Tahlequah, Oklahoma, have been obtained and analyzed. This study has included interviews with several Cherokees at each site. To obtain the oral traditions, a checksheet has been used. Data gathered has been analyzed, reviewed, and studied. Conclusions, information, and data have been developed into a resource manual that could be used for educational classes and presentations. This manual has included

current medical research information, history of medicinal cures, plant identification, and a history of Cherokee herbal remedies.

CHAPTER I

REVIEW OF LITERATURE

Chapter I

REVIEW OF LITERATURE

Herbal healing has included four major traditions: Chinese, Ayurvedic (in India), Duropian (including Egyptian), and American Indians (Native Americans) (Castleman, 1991). This paper has studied the use of selected healing herbs of the Native American, particularly the Cherokee Indian Nations.

Healing properties of plants have not changed; plants have had healing powers, and people have benefitted from the accumulated wisdom gained from the use of herbs through the ages. Of the 265 thousand species of plants throughout the world, only eleven hundred have been thoroughly studied by Western scientists. More than forty thousand additional plants might have had medical value for humans. Research, therefore, has had to focus on plants with useful properties (Linden, 1991).

Today forty-seven percent of all prescriptions have contained a drug from a natural plant source. According to Weiner (1972), the U.S. Pharmacopoeia has listed 170 drugs made from plants that were used by the

Native Americans. Today, on the average, physicians have written eight prescriptions per day for drugs of plant origin (Castleman, 1991).

Early settlers came to America with herbal remedies used in Europe. However, they soon realized the native inhabitants of America, the Indians, knew how to find, select, and preserve plants used to combat specific problems. The settlers were quick to accept these Indian herbal medical remedies. Because the relationship and communication between settlers and Native Americans were friendly during those times, it was common to find Indian medicine men treating both settlers and natives with different plants and herbs.

Valuable information on Indian herbal remedies have come from written records of travelers, missionaries, botanists, and physicians. Of these the most complete and helpful has been the classic, American Medicinal Plants, written by Millspaugh (1892) who illustrated, painted, and reproduced 180 original plates from living plants.

According to Weiner (1972), herbs and early plant remedies used by the Indians were evaluated, classified, tested, and approved for the medical

profession. Three reference sources have recorded those early herbal plant medicines and remedies: U.S. Pharmacopoeia, National Formulary, and The Dispensatory of the United States.

The Native Americans had a unique way of explaining how plants acquired medicinal properties. A plaque at the Museum of the Cherokee Indian had inscribed on it the following myth: "Diseases were created long ago by animals in revenge for the abuses they suffered from man. When the plants, who have always been the friends of man, learned of the afflictions caused by the animals, they decided that they should counteract the evil designs. Each tree, shrub, and herb, down even to the grasses and mosses agreed to furnish a remedy for one of the diseases with the promise 'I shall appear to help man when he calls upon me in his need.' Thus did medicine originate, and every plant has a use if only we knew it."

The Indians used a process called "Doctrine of Signatures" to decide which plants were valuable, useful, and worthwhile. This method identified those plants that were potent and best suited for collection. The doctrine theorized that medicinal herbs exhibited

certain colors, smells, and shapes which resembled either parts of the human body or the organism causing the problem. To eliminate worms, a plant that resembled a worm was used. For treatment of inflamed eyes, an herb that characterized the eyes was selected. This selection idea was used not only by the Native Americans but by early settlers and ancient practitioners as well (Weiner, 1972). According to Mooney (1982), when harvesting an appropriate plant species, the traditional Cherokee doctor passed the first three plants and then took the fourth but not before he offered a preliminary prayer, in which he addressed the "Great Adawehi" humbly asking permission to take a small piece of its flesh. After the plant had been dug from the ground, he dropped a bead into the hole and covered it over. This was a token repayment to the plant spirit.

Other methods of selection included trial and error, tasting, sniffing, and relying on the supernatural even though instead of a cure, a plant selection sometimes caused death. By the process of elimination, the Indians discovered certain plants, flowers, bark, stems, roots, seeds, fruits, and nuts

alleviated pain, speeded birth, cured ills, altered the mind, and induced abortion. The Native Americans were also experts at gathering, storing, preparing, and utilizing the different plant species. Annual plants were dug before flowering, biennial herbs were gathered in late fall when growth had ceased, and other plants were collected when they were in the process of storing their nutrients before winter. Gathering during certain seasons preserved the plants' parts when they were richest in medicinal properties. Some plants were dried for later use, and others were utilized in the fresh state. Roots and stems, if dried, were sliced and exposed to the air but were not placed in direct sunlight. This process took three to six weeks, depending on the weather and nature of the plant parts. Bark was gathered when it slipped easily from the trunk or branches; the inner layer was most often used. Leaves were collected before blooming and dried in the shade. Flowers were used, but infrequently, in herbal medicines; flowers, however, were preserved for use in certain sacred ceremonial rites. Fruits were picked at maturity and either used in the fresh state or dried. Generally, seeds were harvested before seed pods

opened; nuts were collected and stored when mature. The dried herbs were preserved by storing in dry, cool places, or by making them into different preparations.

Herbal medicinal plants were prepared by boiling or steeping in water and were drunk as medicinal tea. Often, tea treatment was given one time during the course of an illness and then was not repeated; however, poultices and salves were often applied several times to promote healing. Native Americans usually prepared herbal remedies by using only one ingredient or plant for each medicine; however, two herbs were sometimes combined to create a single herbal remedy. Rarely did the Indians combine several herbs for one medicine.

Infusion was the most common way of preparing herbs. A small number of leaves or seeds were added to a minute amount of water and steeped for a few minutes. If the prepared herbal remedy was too bitter, other plants or foods, such as honey, were added to improve flavor and taste.

Harder and coarser herbs such as stems, bark, and roots were gently simmered for several minutes until about one-third of the water had evaporated. The

process was called decoction; the mixture was drunk as herbal tea.

Another way of preparing herbs was fermentation. An external application of herbs, made by soaking leaves, cloth, or skins in a preparation of the desired tea, was applied to an affected area. This preparation, used to treat swelling, pains, colds, and the flu, was applied as hot as could be tolerated without burning. It was allowed to cool and then repeated as necessary.

To reduce swelling, a poultice of powdered herbs was made into a paste and then applied directly to the skin. Often, hot materials such as leaves or cloths were then placed over the paste at the affected area where they were left to cool. This procedure was repeated many times to reduce swelling, to relieve pain, and to quiet muscle spasms.

A plaster was sometimes used to prevent irritation to the skin. It differed from a poultice when powdered or wet herbs were placed between two leaves or pieces of cloth which was then applied to an affected area. This prevented the herbal remedy from coming into direct contact with the skin.

Finally, a salve was made by mixing and blending powdered herbs with types of animal fat or beeswax and cooking this mixture for a couple of hours. It was then applied to wounds. Because of the base materials, this mixture had the tendency to remain on the wound for a longer period of time.

These treatments used by the Native Americans in selecting, collecting, and preparing medicinal cures were marveled at by the settlers, as well as by other medical professionals, botanists, and missionaries (Weiner, 1972).

Along with the medicinal use of plants, the Native Americans used spiritual guidance. The Native American's use of the term medicine was different from that of white society. To them it meant an array of ideas and concepts rather than just remedies and treatment. Often when ordinary medicines, made from plants, did not bring relief, the medicine man was called upon to help along the healing process. He resorted to charms, prayers, dances, singing, shaking of rattles, and the beating of drums. In an oral interview, Mr. Choogie Kingfisher, a full-blooded Cherokee and son of a medicine man, from Tahlequah, OK,

told of an unique tribal custom used by the Cherokee medicine men. If a patient recovered through the spiritual guidance and medicinal preparations, a lock or strand of the patient's hair was given to the medicine man to be placed on a pole (spirit stick). Of course, the more hair locks, the greater the healing powers of the medicine man.

The Native American Medicine Man, also called the Shaman, was many things: a healer, a sorcerer, and a seer, an educator, as well as a priest. It was his duty to know the properties of a variety of plants, what demons were present in the body, and to whom the disease was attributed. He was equipped with paraphernalia and equipment appropriate to his calling. This included a special costume (usually animal skins), a medicine bundle that contained charms, a medicine stick, and a bag of herbs. Other equipment included drums, rattles, snake fangs, a hollow bone for sucking, a mortar and pestle for mixing medicines, and many times a syringe for injecting medicine into wounds or administering an enema (Vogel, 1970). This syringe was made from the hollow leg bone of a small bird, by affixing a bladder of a small animal to the top of the

bone, and then sharpening the other end of the bone. Other important items of the medicine bundle were deer tails and other animal parts. These medicinal bags were handed down from father to a son or to a person appointed by the medicine man. They were very important and contained not only herbs, equipment, and paraphernalia, but also charms that warded off evils (Vogel, 1970).

Mr. Kingfisher also related that the full or true-blooded Cherokee medicine men live in a wide area in the Northeastern part of Oklahoma. The full-bloods (about 30 thousand) have maintained authentic ways of old in treating illnesses and disease. The medicine men have continued to treat people by driving away evil spirits and by treating with medicinal plants and herbs.

Medicinal plants were believed to derive their strength from ceremonies performed to make them powerful. The Doctrine of Signatures provided "like-cures" and other plants which were believed to be beneficial to the system because they were distasteful. The distasteful plants were used to rid the body of poison. Consequently, foul-tasting medicine, emetics,

and purges were often used. Of course, the faith of the patient had much to do with recovery. The prayers and ceremonies were calculated to inspire confidence of recovery in the mind of the sick person and undoubtedly reacted favorably upon the person's physical condition (Vogel, 1970).

The Cherokees, during the 19th century, farmed, raised cattle, owned slaves, and raised cotton. They quickly adapted to white man's ways, learned his skills and arts, and also became Christians. Their villages included churches, schools, grist-mills, and blacksmith shops. One elder, Sequoyah, invented an alphabet and a written language for his tribe in 1820. This was unique, as the Cherokee Nations were the only Indian culture to develop an alphabet. This invention resulted in a published bilingual newspaper in 1828.

However, the whites coveted the rich Cherokee lands in Georgia, Alabama, Mississippi, Florida, North Carolina, and South Carolina. Therefore, the whites sought the United States government to remove the five civilized tribes--Cherokee, Chickasaw, Choctaw, Creek, and Seminole--to lands west of the Mississippi River (Gilcrease, 1979). This group had the backing of

President Andrew Jackson, who felt Native Americans were deficient in intelligence, possessed no moral habits, and lacked the desire to improve their lives (Capps, 1973).

In 1838, President Jackson issued an order to have the five Civilized Tribes moved to a Western territory that is now Oklahoma. Sixty thousand Native Americans were rounded up at gunpoint, herded into camps, and moved west under military guard. The greatest number of people to be transplanted to Oklahoma were the Cherokees. Some of the Cherokees escaped, but at the end of the forced march, only fourteen thousand of them survived. This forced march has been known as the "Trail of Tears" (Capps, 1973).

Those who escaped established residency in Cherokee Village, North Carolina. After the forced march, the Cherokees rallied, rebuilt their society, and restored a three-part government: executive branch, legislative branch, and a judicial branch consisting of a five man supreme court. In 1839, they drafted a new constitution and by 1840 had implemented it at Tahlequah, Oklahoma. In addition, they established a public school system (Eighteen schools

were operating in 1843), published and printed a newspaper The Cherokee Advocate, and established two seminaries for higher learning (Capps, 1973).

The Cherokees were suppressed, discriminated against, and punished, yet they considered all men to be brothers. After many hardships, they mastered reservation life and in 1906 accepted United States citizenship. The following year, the Cherokees helped organize the state of Oklahoma (Capps, 1973).

CHAPTER II

PLANT IDENTIFICATION, HISTORY, CHEROKEE USES, DAY FAMILY USES AND MEDICAL RESEARCH

Chapter II

PLANT IDENTIFICATION, HISTORY, CHEROKEE USES, DAY FAMILY USES AND MEDICAL RESEARCH

Twenty-five plants, found in Southwestern Indiana have been chosen to be discussed in this chapter.

Under identification of plants, the common name, botanical, scientific, and sometimes family names have been given; descriptions of plants and where they were located or found have also been included.

The history of the plant has been given to identify the way plants were used in the past, and how the herbs were recorded in earlier times. Included were several folk remedies that were used by the American Indians (Cherokee), the early settlers, and the people of Indiana (Hoosiers) as well as the usage of herbs by early medical practitioners.

Under Cherokee and Day Family uses, herbs and plants have been discussed and listed according to their medicinal uses or remedies. The ways plants were harvested, gathered, conserved, prepared, stored, and what parts of plants were used for treatment of the

different ailments and diseases have been included in this paper. The purpose of this paper has been to record Cherokee herbal remedies that were used by the Day Family so the reader might appreciate, identify, and be knowledgeable about the traditional uses of Cherokee herbal cures. Day Family remedies differed somewhat from the original Cherokee uses. Some remedies that were handed down by word of mouth were not recorded, were altered, and some parts ignored with the passage of time.

Medical research has been included with regard to specific chemical components, experiments and studies of mainly laboratory animals, and what new studies have been conducted during the present time. Warnings, cautions, and safety information concerning use of herbs have also been included. Certain uses of drinking, eating, or applying these herbs were found in some cases to be harmful and to cause severe medical problems.

Sources consulted have been added for the reader's benefit to indicate what usage of plants during the present time were practiced throughout the Cherokee

Nations. Additional information or continued in-depth study of plant identification, history, the Cherokee uses, and medical research of the different plants and herbal remedies were noted.

A word of caution: This manual has been written to record the Day family Cherokee herbal remedies, not to be used as a medical guide. As previously stated, many plants have been found to be very poisonous and people have needed to be knowledgeable about identification and selection of each plant before attempting to use it in any way. The author found it wise to follow Grandfather Days old adage when looking and observing the different plants; "Leaves of three, leave them be."

BLACK COHOSH

Black Cohosh or Squawroot

(Cimicifuga racemosa)

Plant Identification:

Included with buttercup, larkspur, and peony families, Black Cohosh, Bugwort or Squawroot has been found in rich, fertile woods. It was a leafy perennial that reached nine feet (Castleman, 1991). The roots were knotty and black, the stems smooth, and the leaves were large, three-divided, and sharply toothed. The slender, candle-like flowers were white, long-spiked, and emitted an unpleasant odor. The cluster of flowers, up to three feet in length, were found blooming during the summer from May through September. Black Cohosh grew in rich, open woods and along edges of fields (Millspaugh, 1892). They have grown profusely in the Ohio River Valley near and within Harmonie State Park.

History:

Black Cohosh, often called Squawroot because of its use for "female ailments", has also been known by the common name Bugwort, since it emitted an unpleasant odor that repelled insects. It was listed as an

official drug in US Pharmacopoeia from 1820 to 1936 as a sedative, a medication for rheumatism, and as a promoter of menstruation (Vogel, 1970). During the 1800's and early 1900's, settlers used a Black Cohosh concoction for fever, rashes, yellow-fever, and menstrual complaints (Foster and Duke, 1990). In Germany, Black Cohosh has been used in several drugs that were prescribed for the discomforts of menopause. Another herb called Blue Cohosh was not related to Black Cohosh; it was of a different botanical family. The Cherokees used both for menstrual problems (Castleman, 1991).

Cherokee Uses:

The Cherokees boiled the Black Cohosh roots in water, prepared a tea, and drank the tea for bronchitis, rheumatism, snakebite, colic, sore throat, fevers, nervous disorders, and menstrual irregularities (Vogel, 1970). It was also drunk for consumption, constipation, fatigue, and backache (Hamel and Chiltoskey, 1975). Since it was used to treat "women's problems" (delayed menstruation, profuse bleeding, cramps, and pain), it was also called Squawroot

(Weiner, 1972). They collected the roots in September or early fall after the fruits had ripened. The roots were cut lengthwise and allowed to dry then stored for future use.

Day Family Remedies:

Grandmother Day prepared a root tea that was drunk to ward off "cricks" in the back and to relieve the pain of rheumatism. Since Comfrey tea and Sassafras tea had been drunk as spring tonics, the Black Cohosh tea was drunk as a tonic to prepare the body for harsh winters. Often Grandmother served the roots as a vegetable. They were eaten raw or boiled. They had a sweet nutty flavor when they were eaten raw, but when cooked, they tasted similar to carrots.

Medical Research:

Medical research has indicated Black Cohosh was anti-inflammatory, that it reduced high blood pressure by opening blood vessels in animal limbs, reduced animal blood sugar levels, and strengthened female reproductive organs in rats (Foster and Duke, 1990). The chemical, causlosaponia (similar to pitocin) was found to start strong uterine contractions because of

properties that acted as estrogen-like components. Its side effects included dizziness, nausea, vomiting, headaches, joint pains, and depressed heart rates (Costello, 1950).

Sources Consulted:

Black Cohosh, according to Bell (1993), has been used by the Eastern Cherokees as a decoction for high blood pressure, headache, painful menstruation, labor pain, and as a tonic. It was common on upland woods at low elevations and was often found near old homesites. The author purchased an ounce for medicinal purposes.

BLOODROOT

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Bloodroot or Puccoon

(Sanguinaria canadensis)

Plant Identification:

Bloodroot, a perennial, grew in height to twelve inches and was found in large colonies, on wooded slopes, and in rich open woodlands or on bottom lands along shaded streams (Wampler, 1988). The stems and roots had blood red juice but when dried, turned yellow like Goldenseal, and it tasted just as bitter. A single waxy, creamy white flower on a long, smooth stem, with eight to ten petals each had begun to bloom before the leaves appeared. The heart-shaped green leaves were seven to nine-lobed with network of veins. The under surface of the leaves were whitish in color (Millspaugh, 1892). This was in early spring from March to June. Its genus name, Sanguinaria, meant bloody, and it belonged to the poppy family (Foster and Duke, 1990). Colonies were found in Pike County State Forest and the Jim O'Leary Woods; however, it was common throughout Southwestern Indiana.

History:

Bloodroot was listed in the US Pharmacopoeia from 1820 to 1926 as a laxative and pain killer and the National Formulary from 1926 to 1965 (Vogel, 1970). However, it was considered poisonous for animals and people. Tyler (1985) stated that people in Indiana boiled Bloodroot in water to make a strong tea solution for stomach ailments or colic, but he warned it was too toxic for human consumption and was not to be taken internally. Commercial toothpastes, rinses, and mouthwashes have used minute amounts in the preparations to fight plaque.

Cherokee Uses:

The Cherokees used Bloodroot tea for rheumatism remedies, to induce vomiting, and to cure sore throats. They also used it for asthma, bronchitis, and even as a love charm. Root juice was squeezed on maple sugar and held in the mouth. A poultice made from the roots was used on warts, ringworm, fungus infections, eczema, skin cancers and burns (Hamel and Chiltoskey, 1975). A dye made from the root's red juice sap and mixed with tannin (helped set color and made dye more permanent)

from oak bark was used to dye their faces, skin, clothing, baskets, and equipment. Besides being used as a dye, the Bloodroot juice repelled insects and was used as an insecticide. The Native Americans collected the roots in the fall when the seeds were ripe and after the leaves had withered, dried them, and stored them in a dry place (Weiner, 1972). Some tribes believed when a warrior desired a certain woman to marry, he placed Bloodroot in his hands, shook hands with her, and they were married within five to six days (Foster and Duke, 1990).

Day Family Remedies:

The Day family crushed the Bloodroot, prepared a poultice, or mixed pulverized Bloodroots with lard and placed this mixture on "summer" or "touch" sores (Infatigo). Bloodroot pulled the poison from the sores.

Medical Research:

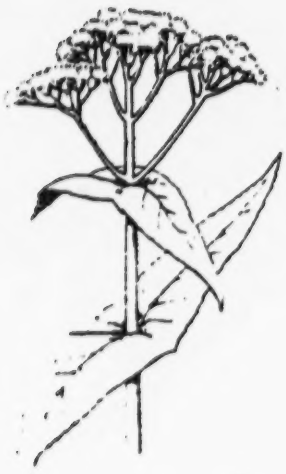
Medically, Bloodroot had a laxative action. A chemical, alkaloid sanguinarine, contained alkaloids similar to morphine and was found to be an antiseptic, anesthetic, and anticancerous drug in laboratory animal

experiments. When roots were eaten, they were poisonous and very alkaloid. Side effects included dizziness, vomiting, and gastrointestinal problems (Castleman, 1991). Commercial toothpastes, rinses, and mouthwashes used minute amounts in toothpaste preparations to fight plaque (Tyler, 1985).

Sources Consulted:

Bell (1993) related that Bloodroot was frequently found at low elevations. It still had uses during special ceremonies as skin coloring and as a dye for basket decorations. Walkingstick (1993) indicated Bloodroot was mixed with ground hog fat instead of bear fat as a base for salve or poultice. Injections of strong tea has been used for hemorrhoids and the Cherokees have prepared a Bloodroot poultice from powdered roots, resin, leaves, and seeds that were used on fungus, ringworm and warts.

BONESET



Boneset or Common Thoroughwort

(Eupatorium perfoliatum)

Plant Identification:

Boneset, also known as Common Thoroughwort, was a long-lived, hardy perennial and hairy plant; it was included in the daisy, dandelion, and marigold family (Castleman, 1991). It was grown in clumps three to four feet tall. The leaves were opposite one another, and united at the base. The dull, white, dense, and flat-topped flowers have appeared from July to September or October and have been found in wet, marshy places near streams but sunlight areas (Millspaugh, 1892). Pike County State Forest was the area in which Boneset was located.

History:

Since the stem of Boneset looked as if it were broken by leaves, the Doctrine of Signatures was the idea applied when Boneset was used as a remedy for broken bones. Millspaugh (1887) wrote that no plant was used more extensively or frequently than Boneset. It was listed in fifty-nine indigenous remedies. The settlers used the herb for dengue (Deng-ee) or

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"breakbone fever." This mosquito-borne virus caused muscle pains so severe the victims thought their bones were breaking. Hence, another reason for the name Boneset. The settlers sometimes referred to Boneset as Indian sage. They hung bunches of the dried herb, tops down, in attics and woodsheds so it could be used immediately when needed (Vogel, 1970). Tyler (1985) listed Hoosiers as using Boneset remedies for cold, flu, headaches, and malaria fever. It was also placed on sprains to speed healing. From 1820 through 1916, Boneset was listed in US Pharmacopoeia and in the National Formulary from 1926 through 1950 for fevers, colds, and the flu (Vogel, 1970).

Cherokee Uses:

The Cherokees wrapped Boneset leaves around broken bones to aid in healing, poulticed it onto tumors, and drank it in a tea to relieve pain, fever, colds, flu, and constipation. When used in large doses, it became a laxative (Weiner, 1972). They also used Boneset for swellings, for sore eyes, to induce vomiting, as a purgative, and as an antiseptic (Hamel and Chiltoskey, 1975). For treatment of epilepsy, other tribes boiled

the Boneset roots to form steam and then immersed the epileptic victim in the rising steam (Millspaugh, 1892). The leaves were collected in late summer (usually August) or early fall when the plant was in full bloom. The leaves were stripped from the stem, dried without exposure to the sun, and then stored in a dry, cool place (Olds, 1975).

Day Family Remedies:

Boiled Boneset root tea was drunk by the Day family as a laxative. Sometimes fresh leaves were chewed for relief of constipation. Often, however, it caused vomiting and stomach problems. Grandmother used Boneset only for extreme cases of bowel problems.

Medical Research:

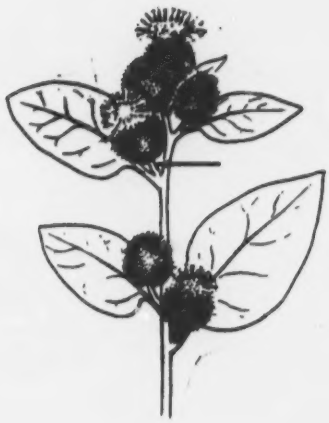
Medical research indicated Boneset contained immune-system stimulating properties, and it was found to depress the motor nerves of the spinal cord (Vollmar, 1986). One of the chemicals derived from Boneset, called tremeral, caused nausea, vomiting, and diarrhea when taken in large doses (Castleman, 1991). Millspaugh (1892) noted another chemical, Eupatorin, first caused irritation of motor system but then

relaxed the capillaries and increased the heart action. However, drying the herb eliminated the toxicity.

Sources Consulted:

According to Stone (1991), the Cherokees have continued to use Boneset tea for pneumonia, colds, and flu-like symptoms. During the wintertime, steeped tea had been prepared from previously dried leaves and stems; however, during the summer months, fresh leaves and stems have been used for the Boneset tea. Boneset or Thoroughwort was found occasionally at low to middle elevations in the Smoky Mountains according to Defoe, Langdon, and Rock (1989). Mr. Walkingstick (1993) proclaimed Boneset tea as an excellent medicine for bringing down fevers due to colds or flu.

BURDOCK



Common or Great Burdock

Common (Arctium minus); Great (Arctium lappa l.)

Plant Identification:

A biennial, common, seedy weed, Burdock, was used throughout the world as food. It grew to a height of three to five feet. Two species were noted: Great (lappa) Burdock and Common (minus) Burdock. The minus was most often found during July through October in moist abandoned fields and waste areas that were readily exposed to the sun (Weiner, 1972). The roots had white, spongy, fibrous interiors that became hard as they dried. At the end of the long stems were large, hairy, egg-shaped leaves. These leaves were green and smooth above, whitish beneath, with tiny crimson veins (Millspaugh, 1892). Each stem was topped with many bristled, purplish flowers that produced burrs. Burdock has been found in many areas throughout Southwestern Indiana.

History:

Burdock was an European treatment for rheumatism. The leaves, during the fourteenth century, were made into wine and used to treat leprosy. Physicians during

the 1800's treated urinary tract infections, kidney problems, painful urination, skin infections, and arthritis with Burdock (Castleman, 1991). The settlers used dried roots in soups, the leaves as greens, and the peeled roots like radishes. Tyler (1985) stated Hoosiers used Burdock and onion soup for rheumatism and Bloodroot tea to thin the blood. They made a poultice from crushed Burdock leaves to draw poison from boils and carbuncles; they pulverized Burdock seeds in water to cause sweating. Burdock root tea was applied to the skin to cure acne. The tea contained the carbohydrate, inulin, that formed a protective absorbent layer on the skin. He also believed the fresh root may have had some bacteriostatic effect. It was listed in the US Pharmacopoeia from 1831 to 1842 and in the National Formulary from 1916 to 1947 as a diuretic (Vogel, 1970). As an edible plant, Forey and Fitzsimons (1989) stated that the Burdock stalks have been peeled, eaten raw, or boiled like celery. The roots have been used to make beer, and the leaves have been used in salads.

Cherokee:

The Cherokees used Common Burdock extensively. Crushed leaves were applied on boils to draw the poison. They poulticed the crushed seeds for bruises, hives, eczema, and other skin problems (Foster and Duke, 1990). It was also used for rheumatism, hemorrhoids, swellings, and skin disorders. Root or seed tea was drunk to cleanse blood, to prevent scurvy and give weakly females strength (Hamel and Chiltoskey, 1975). The leaves and seeds were collected from July through October, usually before a frost, dried, then crushed, and finally stored in a dry place (Millspaugh, 1892). The roots were harvested during fall of first year growth or spring of second year. They were dried by exposing to sunlight or in partial shade (Olds, 1975).

Day Family Remedies:

The Day family has used fresh, crushed leaves on sores, cuts, or bruises. The family has also mixed the fresh leaves with salad greens. Only young and tender leaves were picked. Aged and mature leaves tasted bitter, toxic, and sour.

Medical Research:

When tested, the chemical arctigenin inhibited tumor growth and stimulated uterine activity on laboratory animals (Castleman, 1991). Side effects included hallucinations, stomach upsets, and diarrhea. Leaf hairs irritated the skin in some test situations (Bryson, 1978).

Sources Consulted:

According to Hutchens (1992), the Cherokees have been known to use the parsniplike Burdock roots as a boiled vegetable. They also have used the young, tender, and fresh leaves as salad greens. Many skin conditions such as blemishes, pimples, and whiteheads have been treated with a Burdock facial steam bath. It has also been poulticed on boils. Burdock was commonly found at low elevations in the Smokey Mountains.

CATNIP

Catnip

(Nepeta cataria)

Plant Identification:

Included in the mint family, Catnip has also been known as Catmints or Catswort because of its intoxicating effect on cats (Castleman, 1990). A gray-green, aromatic, perennial, it grew to a height of two or three feet and has been found in well-drained, humus soil under full sun or partial shade at Lincoln State Park. The two-lipped, white (sometimes purple-dotted), clustered flowers bloomed from June to September. The stems were square and the leaves were heart-shaped, scalloped, strongly toothed, and fuzzy (Foster and Duke, 1990).

History:

Throughout history, Catnip has been used as a tranquilizer, a sedative, a digestive aid, a pain killer, and as a mean of relieving menstrual cramps. The colonists introduced Catnip, which grew wild, and quickly spread throughout the country (Millspaugh, 1892). The settlers prepared a tea from the leaves to be drunk for pneumonia, colds, fevers, headaches,

irregular menstruation, insomnia, chicken pox, and as a tonic. Catnip was listed in US Pharmacopoeia from 1916 to 1950 as being able to induce sweating, to promote suppressed menstruation, and to cure colds. It was officially listed in the National Formulary from 1916 to 1950 as a stimulant and tonic (Vogel, 1970). Tyler (1985) indicated Catnip tea had been used more often by Hoosiers than any other remedy or herbal preparation; they used it as a poultice for headaches and minor burns, as tea for colds and fussy babies, and as a sedative for adults.

Cherokee Uses:

The Cherokees prepared a tea from dried leaves to promote digestion, to sooth infants with colic, to relieve menstrual cramps, and to calm the nerves (Weiner, 1972). The leaves were chewed to relieve toothaches, and dried leaves were placed in a small bag, hung around a child's neck, so that the child inhaled the healing, soothing vapors. In 1975, Hamel and Hiltoskey noted catnip was poulticed on swellings, hives, and boils, and leaf tea was used as a stimulant or tonic. The Native Americans harvested the leaves in

late summer, when the plants were in full bloom, dried them in the shade to preserve the green color, and then stored them in a dry place. Finally, they bruised or pinched the leaves to release the aromatic oils (Castleman, 1991).

Day Family Remedies:

From dried leaves, an infusion of Catnip leaf tea was prepared by Great-grandmother and Grandmother Day. It was drunk before retiring and was used to calm the nerves and to promote sleep.

Medical Research:

Medical research has found that Catnip has possessed a chemical, nepetalactone, which was a mild sedative, and was similar to the natural sedative, valepotriate (Jackson, 1969). It had antibiotic, herbicidal, and insect-repellant properties. Side effects included upset stomachs for some people (Poundstone, 1969).

Sources Consulted:

Stone (1991) related many present day Cherokee uses for Catnip. It has been used as a remedy for toothaches, for intestinal cramping, baby's colic, and

gas pains. Also, the juice from the leaves was used to stimulate menstrual flow. Catnip had been used as a steam inhalant to relieve congestion. Crushed dried leaves were placed in boiling water; a person breathed in the vapors from the steam for several minutes. This was repeated a few times a day. In the Smoky Mountains Catnip was scarce; however, it was found in several locales or scattered in small populations according to Defoe, Langdon, and Rock (1989).

COMFREY

Comfrey

(Symphytum officinale)

Plant Identification:

A rough, hardy perennial, often called all-heal, Knitbone, or Bruisewort, Comfrey has been included in the forget-me-not family. The large, hairy, lance-shaped leaves were found clasping hollow, woody, and bristly stems. The roots were thick, deep, and spreading. The flowers which bloomed from May through June were white, blue, or purple and bell-shaped (Castleman, 1991). The plants were found growing in clay or sandy humus soil and in open woods in Harrison Crawford State Forest. They often looked like the first year rosettes of foxglove but should not be confused with this plant.

History:

The Greeks used an extract from Comfrey roots to heal wounds; the Romans boiled it in water and prepared a sticky paste that hardened like plaster. The paste was wrapped around broken bones of the Roman soldiers following battles. The settlers drank a leaf tea for respiratory and gastrointestinal ailments

(Castleman, 1991). Tyler (1985) related Comfrey was mixed with other herbs to produce a herbal mixture for colds, flu, and for use as a tonic. Herbal tea, made from the leaves, provided great relief for stomach problems, but he recommended Comfrey be used externally for research had shown it caused cancer of the liver in small animals. Leaves, too, were chopped, blended, and applied as a poultice directly to wounds, or wrapped in a bandage around the wound. The juice was saved to moisten the bandages when they dried out. The same treatment was used for boils.

Cherokee Uses:

The Cherokees drank Comfrey root tea for "bad memory," cancer, genital infections, milky urine, and internal bleeding. Fresh leaves were poulticed for sprains, tendinitis, bruises, and pulled muscles (Foster and Duke, 1990). The dried leaves were used like tobacco and smoked. They harvested the leaves during May through June when flowers had begun to bud. Leaves were highest in toxic alkaloids during this time. The roots were gathered in autumn, cut into slices, and dried (Olds, 1975). The dried roots were

crushed, powdered, and placed on cuts, burns, and wounds to promote healing.

Day Family Remedies:

Comfrey tea and another common root, Sassafras tea, were drunk by the Day family as spring tonics. The Grandparents also mixed a small amount of baking soda in a cup of hot comfrey tea for "settling an upset stomach".

Medical Research:

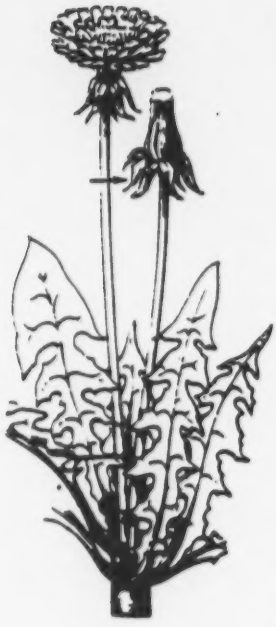
Comfrey contained the chemical, allantoin, that promoted new cell growth; the roots had more allantoin than the leaves. Research data showed liver damage in laboratory animals and other articles indicated Comfrey, taken internally, may have caused cancer (Hiron, 1979). It was recommended for external use. Comfrey, when eaten fresh, contained vitamin C and E; however, it was not to be used in large amounts (Castleman, 1991).

Sources Consulted:

Mr. Walkingstick (1993) stated a syrup made by boiling Comfrey roots has been long accepted as a medicine of great value for coughs and problems of the

lungs. It has also been used for the purpose of cleansing the body of impurities and for use as a tonic. A poultice of fresh or powdered Comfrey dried leaves has helped heal fresh wounds, swellings, burns, and bruises. Defoe, Langdon, Rock (1989) indicated Comfrey was found occasionally and was well distributed, but nowhere abundant in the Smoky Mountains.

DANDELION



Dandelion

(Taraxacum officinal)

Plant Identification:

Dandelion, a perennial plant, was included in the daisy and marigold families. Yellow, several petaled flowers, which opened each morning and closed by early evening, were found blooming, usually in early spring but sometimes as late as August or September (Wampler, 1988). Flowering, elongated, hollow stems had milky juice, grew rapidly, and produced fluffy seeds that blew away with the wind. The leaves were jagged-cut, green, and long. Fields, lawns, and waste areas were places where the plants were found (Foster and Duke, 1990). The Dandelion has been common throughout all Southwestern Indiana.

History:

The Dandelion did not originate in the United States; it was introduced from Europe. The Native Americans soon used all parts for food and medicine. Throughout history, all parts have served as food in salads, soups, and stews (Millspaugh, 1892). Medicinally, it dated back thousands of years. The

Chinese used Dandelion tea as a cold remedy, and the Arabs noted it increased urine production (Castleman, 1991). The settlers prepared the leaves by boiling, and chilling, then they ate them as greens. They also dried the roots, roasted them, then boiled them in water. This concoction was drunk as a beverage or substituted for coffee and tea. Dandelion tea was traditionally used as a diuretic for liver, gall bladder, and liver problems. It was included in the US Pharmacopoeia from 1831 to 1926 as a diuretic and in the National Formulary in 1888 as a tonic (Vogel, 1970). Tyler (1985) listed the following uses for the Dandelion: as greens for blood thinner, purifier, and tonic. It was also used to aid digestion, to relieve stomachs, and drunk as a wine to promote the development of measles rash and to lessen the severity of the disease. Forey and Fitzsimons (1989) wrote: roots have been used as a vegetable when peeled, boiled, and served with butter.

Cherokee Uses:

The Dandelion was linked to the Doctrine of Signatures because the yellow flowers resembled yellow

bile; therefore, it was considered a liver remedy by the Native Americans (Castleman, 1991). For medicinal properties, the Cherokees prepared a root tea that was drunk for heartburn, indigestion and used as a body tonic. The tea was also drunk as a beverage (Weiner, 1972). Roots were dug in the fall, washed, and dried whole or cut into small pieces, three to six inches long, and then stored in a cool dry place (Olds, 1975). Sometimes the roots were roasted slowly for several hours and ground when they became crisp and brown inside. All fresh Dandelion parts were used as a food, a beverage, or as a tonic.

Day Family Remedies:

Grandfather's Dandelion wine, made from the blossoms, was known far and wide. The leaves were used for salad and salad "greens". Grandmother also prepared the stems and blossoms by dipping them into a batter of milk, eggs, and flour, and then frying them in hot grease. The taste was similar to that of many fried vegetables, such as breaded mushrooms. The Dandelion wine was supposed to have cured many

ailments. Even if it did not cure, participants were not aware of any feeling after drinking this beverage.

Medical Research:

Research found the Dandelion chemical, Taxaxacerin, had antibiotic action and animal studies indicated diuretic properties that alleviated menstruation bloating, and reduced high blood pressure (Steiner, 1986). Dandelion roots and leaves were a valuable sources of vitamins; they contained more vitamin A than a carrot. They were also high in fiber content which acted as a cancer preventive in the intestine and colon. For some people, however, it caused skin rashes. Millspaugh (1892) noted it sometimes caused mental excitement, frequent urination, and sweating.

Sources Consulted:

Stone (1991) related that present-day Cherokees have used Dandelion as greens in salads, blossoms have been made into wine, and dried roots have been ground into a "coffee-like" beverage. In the spring a tonic had been brewed from the roots, this was also used as a diuretic, as a laxative, and for many types of

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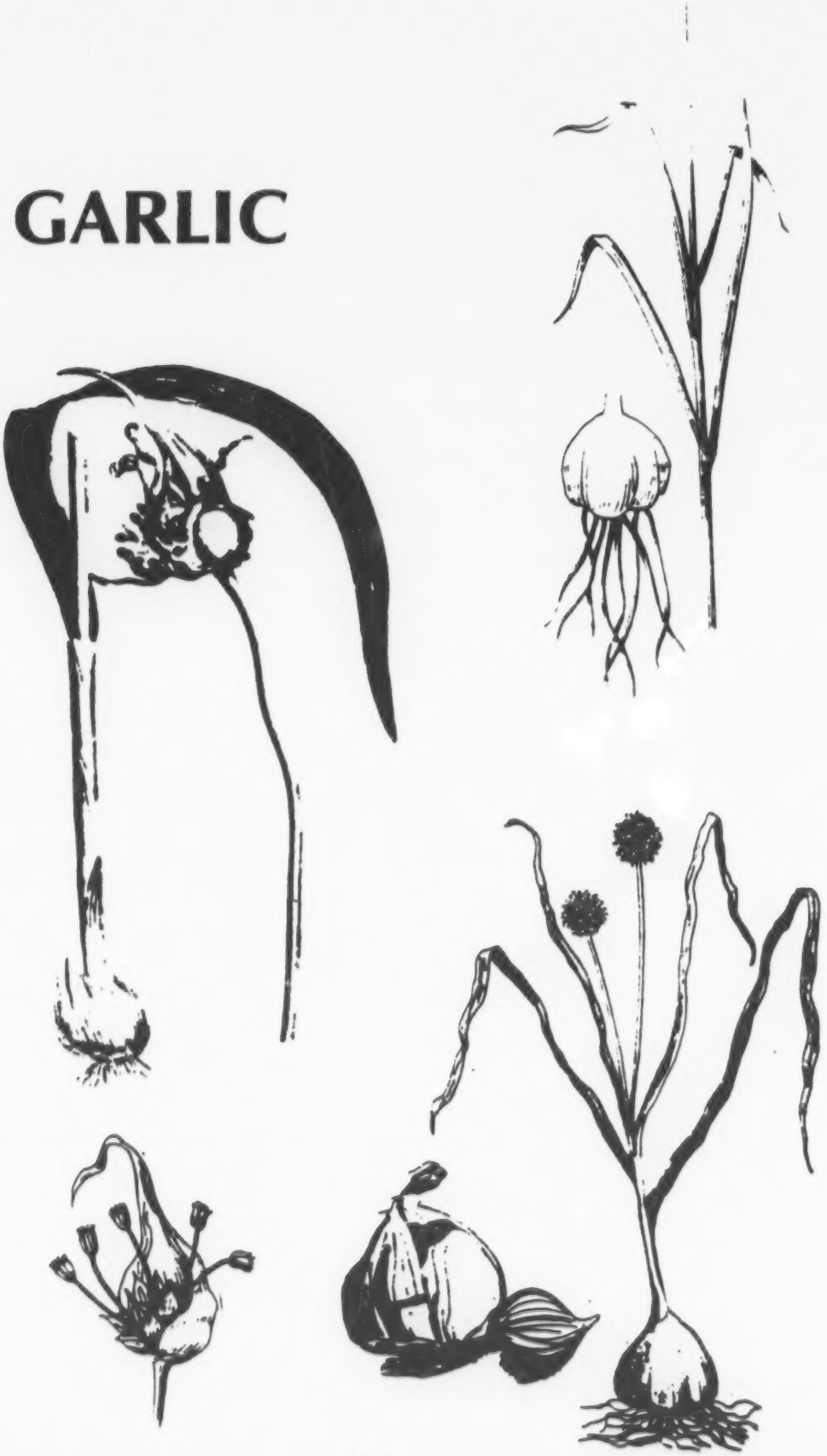
digestive problems. This Dandelion leaf tonic used fresh or dried leaves in one cup of boiling water. The Cherokees drank this tea to aid digestion and calm digestive disorders. They also had used it to relieve cramps, gas pains, control diarrhea, an relieve constipation. Even a herbal hair rinse has been made from: dried dandelion flowers, two cups of water, and the juice of a lemon. Certainly, the common "weedy" dandelion has had many varied uses. Dandelions were common and very dominant in the Smoky Mountains. They were found growing in a wide range of elevations. The Eastern Cherokees have continued to use the plant as did the Western Cherokee Nation.

GARLIC



Garlic

(Allium sativum)

Plant Identification:

The perennial Garlic grew to three feet. The long, pointed, dark green leaves extended to the middle of the stem. Six-pointed, lavender flowers were mixed with bulblets that had long, stringed tails (Wampler, 1988). They grew well in all types of soil but have been found more in direct sunlight areas such as open fields. Garlics have a very strong, pungent odor and have been found in all areas of Southwestern Indiana. It is hardy and a common plant.

History:

Garlic has been considered the world's second oldest medicine, after ephedra. It belonged to the onion family, the name, allium, was derived from the Celtic word which meant pungent. Because it was so pungent or strong, it was considered to have great powers. History recorded its use by the ancients Greeks: Aristotle, Hippocrates, and Theophrastus. They prescribed Garlic for heart problems, headaches, bites, worms, and tumors. The Romans used it as a stimulant;

their slaves were fed Garlic for strength, endurance, and stamina. Garlic was used by the Egyptians to repeat solemn oaths upon, as the Americans have used the Bible. Even King Tut's tomb contained Garlic bulbs (Castleman, 1991). During the 1800's, settlers prepared Garlic in a tea for treatment of colds, bronchitis, coughs, and high blood pressure, in a poultice for croup and pneumonia, and roasted for children's croup (Vogel, 1970). A salve made from Garlic was used to treat infected wounds of soldiers in World War I. Tyler (1985) stated that Hoosiers have used Garlic as an universal home remedy for coughs, high blood pressure, and as a tonic. It has also been used for intestinal ailments and as a sleep promoter. It was officially listed in the US Pharmacopoeia from 1820 to 1905 and the National Formulary from 1916 to 1936 and as a tonic and diuretic (Vogel, 1970).

Cherokee Uses:

The Cherokees used Garlic daily or frequently. Insect sting pain was relieved by placing crushed bulbs on the swollen area. Garlic onions and Wild Leeks tea (which had similar properties to Garlic) were used by

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the Cherokees to lower blood pressure, decrease wound swellings, and inhibit cancer cells. The fresh bulbs and young green shoots were eaten raw to help control colds, diabetes, or stomach problems. Dried bulbs were cooked in other foods for flavor: all parts of Garlic were used either as food, flavor, or for medical properties (Weiner, 1972). Hamel and Chiltoskey (1975) indicated several additional uses, as a stimulant, a diuretic, and a mild cathartic. It was used to prevent scurvy and dropsy, to remove deafness, and to prevent worms in children, as well as (placed on the chest) to treat croup. They harvested the bulbs in June or July, when the tops had begun to turn yellow. The plants were cleaned, the outer loose areas were removed, and the roots were trimmed close to the base. The bulbs were stored loosely or dried in bunches which were hung in a cool, dark area (Olds, 1975).

Day Family Remedies:

Grandfather gathered several bulbs and stored them in the "curing" shed. He used them to help flavor and cure meats. Grandmother used fresh and dried garlic when she prepared many vegetable dishes. She also

placed the crushed, dried bulbs that were wrapped in an old woolen sock along with Vick's salve on a person's chest to relieve chest colds or lung congestion.

Medical Research:

There have been many studies, experiments, and much research done on Garlic. One laboratory study revealed that it lowered blood pressure, reduced serum cholesterol, acted as a natural diuretic, and showed antibacterial activity (Steiner, 1986). Garlic has to be chewed, chopped, bruised, or crushed for the chemicals, ajoene and allun, to be transformed medicinally into the antibiotic allicin. This process activated the chemicals into a powerful antibiotic. In diabetes experiments, blood sugar has been reduced in laboratory animals. AIDS research has indicated daily doses have increased immune functions of the body, and decreased diarrhea (Castleman, 1991). When used as a salve, it has lessened the outbreak of sores, although it was not a cure. Other studies have found Garlic has helped gastrointestinal disorders, soothed hypertension, and decreased cancer cell growth in laboratory mice (You, 1989). However, breath odor from

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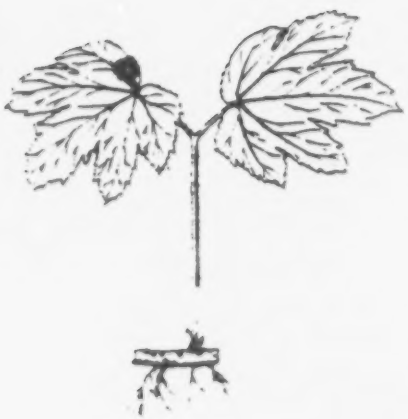
Garlic has prevented many people from using the herb. Additional research has been needed for other possible uses. Garlic has also been found to be high in Vitamin C content.

Sources Consulted:

Today, Stone (1991) related that Garlic had many uses. It has been used by the Cherokees as a remedy for colds, flus, sore throats, and coughs. A cough syrup was made from boiling garlic bulbs and water for half a day. Garlic has also been used for intestinal disorders, as a diuretic, for heart problems, snakebites, intestinal worms, and as an antiseptic. Even charms of Garlic have been worn by many Cherokees to ward off evil spirits, to give strength, and to stimulate courage and a fighting spirit to the wearer of the charm.

In the Smoky Mountains, according to Defoe, Langdon, Rock (1989) Garlic was not as common in this area as in other geographic areas. It was well distributed but nowhere as abundant and was noted growing in low to middle elevations.

GOLDENSEAL



Goldenseal

(Hydrastis canadensis)

Plant Identification:

Goldenseal, also known as Golden root or Indian Paint, was a low growing (six to twelve inches) hairy perennial. The Goldenseal family has included the Buttercup, the Larkspur, and the Peony (Foster and Duke, 1990). The veined, lobed-leaves were found on forked branches; one leaf larger than the other. They grew after the flowers had bloomed and became six to eight inches across. The flowers, single, greenish, and white, bloomed in the spring from April to May and produced a single, orange-red berry that nestled on the top of the stem leaf (Wampler, 1988). They lacked petals but had numerous stamens. The plant grew in clusters and was found in good, natural, drainage areas that had an abundance of leaf mold or decaying vegetable matter (Foster and Duke, 1990). Goldenseal has been difficult to find; in connection with this study, it was found in Pike County State Forest.

History:

Settlers used Goldenseal as an eyewash, a wound treatment and as a sore throat aid, as well as to soothe digestive problems and to help women recover from childbirth. It was included in the US Pharmacopoeia from 1831 to 1842 as a stimulant and for diaphoretic purposes (Vogel, 1970). Tyler (1985) stated Hoosiers used Goldenseal powdered roots for cancer, types of skin conditions, and for sore mouths. The juice of fresh leaves was prepared as a remedy to be drunk after an epileptic seizure.

Cherokee Uses:

The Cherokees favored Goldenseal as an insect repellant or insecticide. When the large rootstock was pounded into bear fat and smeared on their bodies, it acted as an insect repellent. For skin diseases, the roots were boiled in water and the concoction then applied to treat skin disorders; it was used in a bath for local inflammations (Hamel and Chiltoskey, 1975). Because Goldenseal had a bitter taste, honey was added to the herbal tea to improve the flavor (Weiner, 1972). This tea was drunk for sore mouths and throats as a

diuretic, or used as a sedative, as well as a digestive aid. A powder was used as a blister for skin problems (Vogel, 1970). The roots were dug and harvested in autumn or late fall after the plant had withered and frost had killed top growth. The roots were cleaned, dried until brittle in an airy, shady place, pounded into a powder, and stored in a dry cool place (Castleman, 1991).

Day Family Remedies:

Grandfather Day prepared a "treatment or blister" salve made with Goldenseal, Wintergreen, and turpentine for his horses when they "stifled" or "bowed" a tendon. The poultice was applied daily for an entire week. This treatment "heated" the leg, which promoted healing.

Medical Research:

In research experiments, Goldenseal contained two active chemicals, berberine and hydrastine, that boosted the body's immune system, slowed the growth of tumors, and lowered high blood pressure (Castleman, 1991). Berberine killed bacteria that caused diarrhea (such as amoebic dysentery) and was effective against

cholera bacteria (Cushman, 1979). More medical research has been needed for it to be used in cancer chemotherapy. Commercially grown and harvested Goldenseal has been used by modern medicine in a variety of prescription as well as over-the-counter preparations.

Sources Consulted:

Stone (1991) related that her grandmother used Goldenseal for treatment of an infant's thrush mouth. Within 48 hours, the thrush was gone. Even today, few wildflowers were as important to the Cherokees as was the multi-purpose Goldenseal. Remedies were offered for inflamed eyes, mouth sores, for stopping bleeding, and for hemorrhaging. Its use as an antiseptic was also well known. A tea was prepared for stomach aches, morning sickness, and as a douche for vaginal inflammations.

Mr. Bell (1993) noted there were two types of Goldenseal which grew on the ridges at low elevations in the Smoky Mountains. The type used on sores was rare in that area; however, the author was able to purchase an ounce for medicinal purposes.

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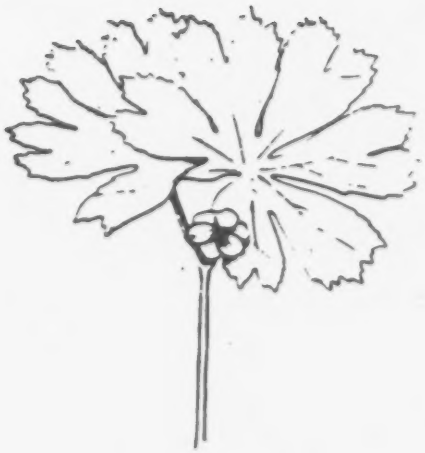
MAY APPLE



Mayapple

(Podophyllum peltatum)

Plant Identification:

Mayapple, also known as Indian Apple, or Devil's Apple, was a common perennial that grew twelve to eighteen inches in height. The unpleasant odor flowers bloomed from April through June. A single, waxy, white flower drooped from the crotch or under the smooth, umbrella-like seven-to-nine lobed leaves (Millspaugh, 1892). The plants produced yellow, two-inch, edible fruits and had creeping roots. They were found in clusters growing in rich, humus, moist, hilly areas, woods or fields (Wampler, 1988). The Mayapple has been a common plant found in all areas of Southwestern Indiana.

History:

Throughout history, the Mayapple was also known as an Indian apple. Settlers used the roots for medicinal remedies and ate the yellow berries for nutritional values (Castleman, 1991). Hoosier remedies indicated root tea induced abortion, powdered roots relieved constipation, and Mayapple fruits, when eaten, helped

overcome heat exhaustion. Tyler (1985) indicated that the roots were powerful purgatives, not only on the smooth muscles of the intestinal tract but also on the uterus. The fruits were edible and when the body lost salts (electrolytes) during profuse sweating or heat exhaustion, the digested fruits restored body salts and sugar. Because of the sugar, the fruits also served as a source of energy and were eaten raw, cooked, or made into preserves. It was on the primary list of the first US Pharmacopoeia from 1820 to present and the National Formulary in 1888 as a purgative and cathartic (Vogel, 1970).

Cherokee Uses:

Like Goldenseal, the Cherokees used Mayapples as insect repellents and insecticides to ward off pesky insects. The flowers had an unpleasant odor. Pulverized and crushed, the dried roots made into tea were used as a cathartic, a laxative, or a purgative substance. The Mayapples were also used for gallstones, worms, and dropsy. Another use included a poultice made from crushed leaves for skin disorders. Homel and Chiltoskey (1975) stated that the joints of

the roots were poison; the Cherokee used only those portions between the joints for boiled tea. Some women used large doses to commit suicide. The roots were considered poisonous when ingested in large amounts. When mixed with other herbs and animal fats, the salve or ointment was used to treat different types of warts (Weiner, 1972). They ate the ripe fresh fruit, raw or cooked; however, the fruit had to be ripe, or it was considered poisonous. The fruit was gathered when the leaves withered and turned yellow. The Mayapple leaves, joints, and roots were harvested, collected, and dug from April to June, then dried, made into poultices, salves, or were dried in bunches and stored (Weiner, 1972).

Day Family Remedies:

Grandfather Day prepared Mayapple insecticide by boiling the entire plant, which was then sprayed on his garden vegetables. This prevented beetles, grub worms, and other insects from destroying his crop. Grandmother prepared Mayapple jelly from the pulp of fresh, ripe fruit. It tasted similar to "crab apple" jelly; a bit tart, but sweet and at the same time sour.

Medical Uses:

Research has found Mayapple chemical compounds treated testicular cancer, venereal warts, and small-cell lung cancer (Foster and Duke, 1990). Etoposide, a semisynthetic derivative of Mayapple, was used to treat several types of cancer. Side effects have included diarrhea and vomiting. It was a very powerful glandular stimulant and overdoses easily occurred. It was recommended that only very small dosages be used (Tyler, 1986). Some natural gardeners crushed the leaves, boiled them in water, and the sprayed the mixture on garden plants. This acted as a natural insecticide (Olds, 1975).

A chart at the museum of the Cherokee Indian in Cherokee, NC indicated the following, "Drugs derived from Mayapple were used to treat many forms of cancer. Some scientists have believed the chemicals extracted from Mayapple were our best hope of curing many forms of lung cancer."

Sources Consulted:

Today as stated by Stone (1991) Mayapples have been used as a powerful laxative, as a purge for

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intestinal worms, as a cure for warts, and for the treatment of liver problems and cancer. The fruit has been eaten for nutritional purposes. The Cherokees also continued to use the Mayapple as an insecticide on their crops.

In the Smoky Mountains and Cherokee, North Carolina, Mayapples were common and dominant throughout a wide range of elevations. It has been used not only as a food but has continued to be used by the Eastern Nation as a laxative and to induce vomiting.

MILKWEED

Common Milkweed

(Asclepias syriaca)

Plant Identification:

Milkweed, sometimes called Cottonweed or Wild Cotton, was of two types: common and four-leaved. The milky-juiced, latex, and downy perennial has grown from one to four feet in height. The common type has had four to ten-inch, paired, broad, long leaves, which are four to eight inches in length while the four-leaved has had a middle set of larger ones (Millspaugh, 1982). A single dusty, pink-purple globe or ball-shaped cluster flower has had five downward pointing petals and was borne in the upper leaves. The flowers bloomed from June to August. Seedpods were rough-surfaced and split when ripe; the seeds had tufts of silky hairs (Wampler, 1988). The Milkweed has been found in moist, rich or sandy ground near woodlands in all southwestern state parks and forests.

History:

Early physicians used Milkweed for asthma, rheumatism and cancer. As an edible weed, the settlers cooked its young shoots or sprouts like asparagus, ate

the roots raw or cooked, and used the leaves in salads (Millspaugh, 1892). The milky sap found in the leaves and stems was bitter and contained glycosides. They eliminated the bitter taste and glycosides by boiling the plants in water several times (Wampler, 1988). Tyler (1985) stated that Hoosiers allowed juice or milky sap to drip into a cut or wound to stop bleeding, treated burns or sunburns with sap diluted with water, and also applied the mixture to infected poison ivy areas, warts, ringworm, and skin blemishes. Milkweed was the most common and popular remedy for warts and skin problems. The milky latex formed a protective coating when it dried on the skin. Milkweed was officially listed in the US Pharmacopoeia under the name Asclepias from 1820-1905 and in the National Formulary from 1916-1936 as emetic and purgative (Vogel, 1970).

Cherokee Uses:

The Cherokees prepared a root tea that was used as a laxative to relieve constipation, as a diuretic for kidney stones, to promote sterility, and to induce sweating (Foster and Duke, 1990). It was applied also

to skin disorders: warts, moles, ringworm. Hamel and Chiltoskey (1975) indicated the fiber of the plant was also used for bowstrings. The plants were collected during the pre-blooming stage when they were tender and young. Roots were dug, at that time, dried in partial sunlight, pounded into a powdered mixture, and stored in a dry place. Sometimes tea was prepared from a whole, fresh plant (Weiner, 1972).

Day Family Remedies:

Grandmother prepared fresh Milkweed sap or juice mixed with lard or butter. She used this preparation on burns, other skin irritations, and blemishes. She also used it as an edible vegetable. The leaves, stems, and flowers were picked when young, boiled in several changes of water, and then simmered until tender. The treated pods were sometimes used in soup.

Medical Research:

The sap was toxic and contained cardioactive compounds. Very few scientific studies regarding effectiveness of milkweed have been made (Tyler, 1985).

Sources Consulted:

At the present time, Milkweed has had a variety of uses according to Stone (1991). A multitude of skin ailments, warts, ringworms, and poison ivy have been treated with the milky white substance or latex that oozed from the plant when it was cut or sliced. A concoction made from the boiled roots has been used to treat bowel problems, kidney disorders, rheumatism, and asthma. A tea made from the powdered dry roots has been used as a sedative. Even the silky down found in the giant seedpods has been used to stuff beds, pillows, and to make clothing warmer. Sometimes, the young shoots were used as a vegetable but had to be boiled in three or four different batches of water to remove the toxic substances. The Cherokees considered the Milkweed roots poisonous and did not eat them.

Mr. Walkingstick (1993) indicated Milkweed salve was used on skin sores. Milkweed was not abundant in certain areas of the Smoky Mountains; however, it was found occasionally and was well-distributed over the area.

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MISTLETOE

Mistletoe

(Phoradendron serotinum)

Plant Identification:

Mistletoe, a perennial parasite, has been best known as the plant under which people kissed at christmas. There were many different species, but the most common, least damaging type has been found on oak trees. The tiny roots bored into the host tree, established new plants, and began to grow (Castleman, 1991). Leaves appeared first; afterwards, growth was rapid. Mistletoe was a thick-branched, woody evergreen with leathery, three-inch oblong leaves. The translucent white berries or fruit contained a single seed (Foster and Duke, 1990). Because it grew high in trees, Mistletoe has been difficult to collect. It was found high in an oak tree in Harmonie State Park. It has not been as common as in the past years. Pollutants in the air have taken a toll on this parasite; also, logging of oak trees has destroyed many of the host trees.

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History:

During the Middle Ages, the herb was used for disorders of the spleen, "falling sickness" or epilepsy, and for apoplexy or stroke. The settlers used it to treat high blood pressure and cancer. The herb's association with kissing was due to Norse mythology. The god of peace, Balder, was slain with a mistletoe arrow. When the goddess, Queen Frigga, restored him to life, she gave the plant to the goddess of love, thus anyone who passed under it received a kiss (Castleman, 1991).

Cherokee Uses:

The Cherokees found Mistletoe, when taken in large quantities, induced abortion and stimulated contractions during childbirth (Weiner, 1972). Because of the action on the uterus, and its ability to stop bleeding following parturition (bleeding after childbirth), it was used to promote healing after birth. Some women used Mistletoe to prevent conception. A tea prepared from the leaves was used for epilepsy, headaches, and lung ailments (Foster and Duke, 1990). Hamel and Chiltosky (1975) noted that the

Cherokees pulverized the entire plant, made a tea, and bathed the head with tea for headaches and high blood pressure. Mistletoe was collected during the late autumn or early winter (November or December). The leaves and young twigs were dried and stored and the fresh berries mashed to make a paste.

Day Family Remedies:

The Day Family pulverized the entire plant and made an infusion that was used externally to bathe the body and for reducing high fevers. During the Christmas season, Grandmother threaded sprigs of Mistletoe berries, red holly berries, and popcorn on a string. They were used as decorations on the Christmas tree.

Medical Research:

The chemical, tyramine, stimulated uterine contractions in laboratory test; however, to induce abortion, the dosage had to be high or close to fatal. Scientists studied the chemicals in Mistletoe and found that they both raised and lowered blood pressure. The chemicals that reduced blood pressure appeared to predominate (Franz, 1981). Other studies found

Mistletoe stimulated the body's immune system, impaired the growth of test-tube tumor cells, and benefitted treatment of lung and ovarian cancer (Mack, 1984). Some reports indicated Mistletoe contained toxic chemicals that caused vomiting, muscle spasms, coma, convulsions, and death. Further investigation concluded that small amounts of the leaves produced no serious poisoning even though several toxic chemicals were reported (Castleman, 1991). Toxicity included nausea, vomiting, diarrhea, headaches, muscle spasms, or convulsions. Research has been limited because of the fear of toxic chemicals; yet, many approved cancer drugs have been found more toxic than Mistletoe.

Sources Consulted:

Mr. Walkingstick (1993) indicated Mistletoe was poisonous and when used the small white berries were mashed, pulverized, and only used externally. Mistletoe was scarce in several locales and was found scattered in small populations; when found, it was at low or middle elevations.

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PARTRIDGEBERRY

Partridgeberry or Squaw Vine

(Mitchella repens)

Plant Identification:

A creeping, trailing, vining, evergreen perennial, Partridgeberry or Squaw Vine has grown from six to fourteen inches; it has been found near decayed stumps, near oak trees in the Harrison Crawford State Forest, in soil rich in humus and moisture, and in moist woods, especially those abounding in evergreens. Thick, shiny, dark green leaves were rounded or oval, one-half inch long, with whitish veins. The creamy white or light pink, funnel-shaped, paired flowers had inner lobes that were hairy (Wampler, 1988). Single, dry, red or scarlet, edible berries developed after the flowers blossomed from April, May, or June. Birds have been fond of the berries (Olds, 1975).

History:

Partridgeberry was listed in the National Formulary from 1926 to 1947 as a tonic, as an astringent, and a diuretic (Weiner, 1972). Settlers used it not only for tonics and astringents but for swellings, hives, sore nipples, and menstrual

difficulties (Vogel, 1970). It was found in a valuable diuretic and was used for various forms of uterine difficulties (Millspaugh, 1892).

Cherokee Uses:

The Cherokees named Partridgeberry, Squaw Vine, because it treated the following "female troubles": slow childbirth, slow placenta delivery, stopped post hemorrhage, and the pain of childbirth (Foster and Duke, 1990). An herbal tea was prepared by boiling the leaves. This concoction was drunk by the pregnant woman preceding the expected date of delivery. The red or scarlet fruits or berries were eaten when ripe and fresh. Sometimes fresh leaves were made into a tea and drunk for painful menstruation, for dysentery and piles, and for sore nipples (Hamel and Chiltoskey, 1975). Leaves were collected when plants were blooming in May or June and then dried under partial sunlight while others were used while fresh. Often the entire fresh plant was chopped and pounded. The berries were collected when ripe and eaten while fresh.

Day Family Remedies:

Great-Grandmother Day prepared Partridgeberry tea, which was drunk for painful menstruation or "cramps". Tea was also given to family members with infected, inflamed, or painful bladder problems.

Medical Research:

No recent scientific studies have been found concerning laboratory tests on Partridgeberry. Since it was listed in the National Formulary in years past, a more in-depth study has been needed to determine its medicinal properties.

Sources Consulted:

Mr. Bell (1993) indicated Partridgeberry or Squaw Vine was still used for "female problems" and that the berries were eaten as a food when ripe. The author was able to purchase one ounce for medicinal purposes. In the Smoky Mountains, Partridgeberry was common and quite dominant in all locales according to Defoe, Langdon, Rock (1989). It was found growing at low and middle elevations.

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PENNYROYAL

Pennyroyal

(Hedeoma pulegioides)

Plant Identification:

An annual, Pennyroyal was included in the mint family and was otherwise known as Tickweed, Fleabane, or Squawmint. It grew to one and one-half feet in height and had a mint-like, strong odor or fragrance. Small, opposite leaves were found on short, square stems that grew from fifteen to eighteen inches. On the end of the stems grew pale, blue flowers (Foster and Duke, 1990). Pennyroyal was found growing from July to September in areas with dry, sandy soil, or on gravelly, loose slopes (Wampler, 1988). It has been common along the banks of the Wabash River that runs through Harmonie State Park.

History:

The Greeks hung Pennyroyal in sickrooms, where the fragrance, when released, was thought to promote healing (Castleman, 1991). Physicians during the 1800's combined Pennyroyal with brewer's yeast. This has induced abortion, sweating, the early stages of colds, and promoted delayed menstruation (Weiner,

1972). The settlers used Pennyroyal to dress wounds, to repel insects, to treat cold, flu, coughs, congestions, and to stimulate menstruation or abortions (Vogel, 1970). It was listed in the US Pharmacopoeia in 1862-1881 as an ointment and was used to keep off gnats, ticks, fleas, and mosquitoes (Millspaugh, 1892). Tyler (1985) mentioned Pennyroyal several times. Hoosiers prepared a tea, that when drunk, caused a pregnant woman to "come around"; it was also used for colds, flu, colic, and headaches. When hung in dried bunches, Pennyroyal drove away mosquitoes. Pennyroyal was officially a decongestant, a cough remedy, a digestive aid, and an abortion inducer. It got its name, Fleabane, because of its use to repel insects and fleas.

Cherokee Uses:

The Cherokees crushed the leaves and inhaled the mint-like odor to relieve headaches. They also prepared a tea to be drunk for relief of menstruation cramps and pain. Other uses included treatment of diarrhea, painful urination, and hemorrhaging. Hamel and Chiltoskey (1975) wrote that beaten leaves were

held in the mouth for toothaches, and that crushed leaves were rubbed on the skin as an insect repellent. They collected the leaves in early summer when the plant was in full bloom. The leaves were dried in the shade and then stored in a dry cool place. The fresh crushed leaves were inhaled. Tyler (1985) stated that many Native Americans used Pennyroyal tea to treat bites from rabid animals that were no higher than the shoulder. The wounds were packed with bruised, fresh leaves or with soaked dry leaves, and if patients could swallow, tea was given to them. However, if victims could not drink the tea, they were washed with the liquid.

Day Family Remedies:

Grandmother Day boiled or simmered the leaves in a small iron pot that was left sitting on the back of an old iron kitchen stove. The steam would go throughout the home to freshen the air and to relieve headaches during the wintertime. She sometimes took Pennyroyal, mixed it with other plants (crushed rose leaves, mints, pine needles), placed the herbs between clothes, and sewed them into small squares. Then she placed these

fragrances in dresser drawers to keep clothes smelling fresh.

Medical Research:

Pennyroyal oil was very toxic. Symptoms included severe headaches, nausea, weakness, and paralysis of limbs (Millspaugh, 1892). As little as a teaspoon of concentrate caused death. However, when dried, the herb lost its toxicity and was used without danger. Scientists have found chemicals similar to peppermint menthol but they were not as strong (Sullivan, 1979). Some skin creams mixed Pennyroyal with other ingredients to promote healing. It has been called a powerful but dangerous intestinal irritant which caused abortion and sometimes death when eaten by animals (Vogel, 1970).

Sources Consulted:

According to Bell (1993), Pennyroyal was nowhere abundant but was well distributed over a wide area in the Smokey Mountains. It was found occasionally at low and middle elevations. The Eastern Cherokees inhaled Pennyroyal steam for headaches and often crushed the fresh leaves which were then placed on a tooth for

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treatment of a toothache. He also mentioned that Prickly Ash Bark (known as toothache tree) was an excellent remedy for toothaches. The author was able to purchase one ounce of Pennyroyal for medicinal purposes.

SENNA

American Wild Senna

(Cassia marilandica)

Plant Identification:

Wild Senna, also known as Cassia and included in the pea family, was a hardy perennial with five petal yellow flowers that was found in loose clusters blooming during the summer. The yellow flowers were borne on slender, fuzzy stems; the leaves were pointed, and the seeds were in leathery pods (Wampler, 1988). A small wood shrub, it grew to three feet in height. It has been necessary to avoid confusing it with cinnamon; both came from peelable bark. It was found growing in rich humus soil near woodlands, thickets, and bottomlands in Pike County State Forest.

History:

History has revealed Senna was widely used in other countries from the Middle East to India to treat fevers (Castleman, 1991). It was listed in US Pharmacopoeia from 1820 to 1882 as a mild laxative (Vogel, 1970). Tyler (1985) stated Senna was a folk remedy; Hoosiers made tea from the leaves that were used as an excellent purge for the body system.

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Cherokee Uses:

The Cherokees pounded the roots of Wild Senna with water to make a salve or poultice and then applied the mixtures to sores or wounds. A tea was good for childhood illness, for heart troubles, for fainting-spells, and for cramps (Hamel and Chiltoskey, 1975). After a decoction was made from the leaves, it was drunk to reduce fevers and to ease sore throats. The dried, powdered leaves were also used for cathartic purposes or as a strong laxative (Weiner, 1972). The Cherokees gathered, prepared, and stored the roots, leaves, and seeds at the time of flowering.

Day Family Remedies:

Grandmother Day prepared a Wild Senna herbal tea and laced it with brown sugar to improve the taste. It was drunk and used as a mild laxative.

Medical Research:

The plant, Senna, contained the chemical, anthraquinone, that stimulated the colon. It sometimes caused damage when people had chronic gastrointestinal conditions such as ulcers, colitis, or hemorrhoids (Castleman, 1991). Also, large amounts caused

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diarrhea, nausea, cramps, severe griping, and dehydration (Millspaugh, 1892).

Sources Consulted:

According to Hutchens (1992), present day Cherokees have made a decoction from dried leaves and have drunk it to reduce fevers and ease sore throats. They also used Senna tea as a mouth gargle. Large doses have been used as an emetic and cathartic. A remedy for pimples was a paste made of dried leaves and vinegar. Senna was found occasionally at low elevations in the Smoky Mountains. It was not abundant; however, the author was able to purchase one ounce for medicinal purposes.

SKULLCAP

Skullcap

(Scutellaria lateriflora)

Plant Identification:

A member of the mint family, Skullcap has also been called Mad-dog Skullcap, Quaker Bonnet, or Mad-dog Weed. A slender, branching, two-foot shrubby perennial, it had a tiny skull-cap growth that gave it its common name (Wampler, 1988). The upper part also had short, whitish hairs. Long-stalked, serrated, toothed leaves were opposite one another, pointed at the tips, and oval or lanced-shaped. The flowers had two lips, were violet or blue, and bloomed in the shade (Foster and Duke, 1990). It grew in rich, moist soil, in wooded thickets and was found in Harmonie State Park from July through August.

History:

For years the Chinese used Skullcap as a tranquilizer or sedative for treatment of convulsions and as a digestive aid. During the 1800's Skullcap was used as a sedative, for treatment of malaria fever, and as a nerve tonic (Castleman, 1991). It was listed in

the US Pharmacopoeia from 1820 to 1882 where it was described as a mild laxative (Vogel, 1970).

Cherokee Uses:

The Cherokees drank Skullcap tea to promote suppressed menstruation and also to stop diarrhea (Weiner, 1975). Because of its bitter taste, it was mixed with honey to improve flavor. It was also reported to be effective against rabies, hence the name Mad-Dog Skullcap. The Cherokees also mixed bruised roots moistened with water and bear grease to be used as a dressing for sores, swellings, inflammations, and other types of wounds (Hamel and Chiltosky, 1975). The plant was cut in the spring when stems and leaves were young and tender; however, sometimes the leaves were harvested in midsummer when the plant was in full bloom. The leaves and stems were dried in full shade and then stored.

Day Family Remedies:

Great-Grandfather Day used a Skullcap salve and mixed it with "hog fat" to use on horses where the harness rubbed the body sore. The Skullcap healed and the lard prevented large scabs from forming. It also

prevented white hairs from growing back where the sore had occurred.

Medical Research:

Skullcap contained the chemical compound scutellarine, that was a sedative and was found to have antispasmodic qualities (Kimura, 1981). Certainly, with all of its past uses, more research has been needed. Millspaugh (1892) stated that Skullcap proved itself useful as a tonic in chlorea, tremors, chronic disorders, and many other diseases. However, he found mental confusion, stupor, headache, dilated pupils, and variable pulse with reduction of heart action followed by wakefulness and restlessness as many of the side effects of this plant.

Sources Consulted:

The National Park Service indicated Skullcap was quite abundant throughout the Smoky Mountains. It was found growing at low to middle elevations. Walkingstick (1993) stated that a strong Skullcap tea was used for insomnia, alcoholism, headaches, and pains in the heart. Sometimes it was administrated for the treatment of cramps and female problems. It was also

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used as a dressing on sores, swellings, and inflammations.

SNAKEROOT

Snakeroot

(Polygala senega)

Plant Identification:

There have been two species of the perennial Snakeroot: Senega and Black Sanicle. The Senega was the most common and the most often used. Small, pea-like, oblong, white-spiked leaves were alternated with lance-shaped leaves on smooth stems. The thistle-like, greenish-white flowers were mingled with stiff, pointed bracts (Foster and Duke, 1990). Snakeroot grew to six to eighteen inches during May through July in rocky, partially shaded, open hardwood forests where there was leaf mold or similar humus. It has been found in many areas in Southwestern Indiana.

History:

In Indiana, Tyler (1985) noted that Hoosiers used Snakeroot remedies for snakebites, kidney problems, and violent bleeding. He recommended that white snakeroot (Eupatorium rugosum) never be used internally; it was extremely poisonous for humans and animals. People who drank milk from cattle that had eaten the root acquired the condition "milk sickness," which was sometimes

fatal. In 1818, Abraham Lincoln's mother, Nancy Hanks, was reported to have died of this disease. (The Lincolns, at that time, resided in Spencer County, Indiana). One type, Button Snakeroot (Eryngium yucca folium) was similar to yucca; hence, its botanical name. Another species, Black Sanicle (Sanicula marilandica) was used by the settlers and Indians for pain, kidney ailments, rheumatism, and fevers. It was officially listed in the US Pharmacopoeia from 1820-1936 as a cough remedy, stimulant, and diuretic, and in the National Formulary from 1936-1960 (Vogel, 1970).

Cherokee Uses:

The Cherokees boiled the Snakeroot, made a preferred tea, and treated high fevers with this infusion. They used a poultice made from the roots that was applied on snakebites, reduced swellings of wounds, and minimized pain (Weiner, 1972). It was used for other ailments as well; as a sweat inducer for colds, coughs, croup, bronchitis, asthma, and pneumonia. They also rubbed the poultice on joints to relieve pain and for rheumatism. They blew a decoction of the root upon a patient for fever and feverish

headaches (Vogel, 1970). The roots were dug in the spring and again in late fall when the leaves were dead but before the first frost. They were cut, dried in the sunshine, and stored in a dry place. Sometimes they were pounded into a coarsely-powdered substance (Millspaugh, 1892).

Day Family Remedies:

The Day family made a poultice from snakeroot and lard, or "hog fat." This mixture was placed on swollen joints of the farm animals. The family was always cautious with the cattle and horses. Snakeroot eaten by cattle and horses killed them or made them severely ill.

Medical Research:

Snakeroot contained poisonous substances; when taken in large doses, it was fatal to laboratory animals. However, the chemical, methyl salicylate, has relieved pain in laboratory experiments (Foster and Duke, 1990). There had been limited scientific research due to the toxic chemicals found in different species of the plants. Millspaugh (1892) noted Snakeroot in some cases caused paralysis of muscles of

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the respiratory tract and of the motor system, constriction, aching, soreness, restless sleep, and general debility.

Sources Consulted:

Snakeroot, according to Walkingstick (1993), wasn't as popular as a medicinal remedy at the present time; however, the Eastern Cherokees sometimes have used Snakeroot salve or poultice to reduce swellings of joints. The plant was scarce and was scattered in small populations at low elevations in the Smoky Mountains.

SPIKENARD

Spikenard

(Aralia racemosa)

Plant Identification:

Spikenard was a perennial, aromatic herb that grew three to five feet in height, that has been found blooming in rich woods in the area of Southwestern Indiana. Its family members have included the Ginseng family (Foster and Duke, 1990). Long, smooth, dark green or reddish stems had small whitish flowers that formed small clusters on tiny branches that extended from the stems. The flowers bloomed from June to August. The leaves were dark, deep green, saw toothed, and heart-shaped (Millspaugh, 1892).

History:

Settlers used Spikenard as a blood purifier and as a remedy for lung ailments, asthma, rheumatism, and backaches. The powdered roots were officially listed in the National Formulary from 1916 to 1965 as a stimulant and for diaphoretic purposes (Vogel, 1970). Hoosiers, as reported by Tyler (1985), combined Spikenard with wild mint and used this as a prepared massage lotion for sore backs. Another herbal mixture

that included Spikenard was taken for tuberculosis. The boiled root was made into a poultice which was applied on wounds to treat blood poisoning.

Cherokee Uses:

The Cherokees prepared a Spikenard root tea for backaches, menstrual difficulties, coughs, asthma, and diseases of the lungs; they made the roots into a salve to be used on boils, infections, swellings, wounds, and cuts (Hamel and Chiltoskey, 1975). The beaten and pulverized roots were also used on burns and the root juice was used for earaches (Weiner, 1972). Spikenard was gathered during June through August. The fresh roots were pulverized for the juice and made into a salve or poultice. Other harvested, chopped, and pounded roots were dried in an open sunny place, then powdered, and finally stored in a dry cool place. When needed, the powdered roots were used in preparing a root tea.

Day Family Remedies:

Grandfather Day used a poultice hoof preparation made from Spikenard and turpentine. This was placed on a horse's hoof when "thrush" (hoof rot) developed.

Thrush was common during the winter months or when a horse was stalled for a long period of time.

Medical Research:

Modern research has found Spikenard contained the chemical aralin (Weiner, 1972). This chemical was used in some over-the-counter drugs and has been found in types of massage lotions. Some people have allergic reactions that have caused skin rashes, sores, and skin eruptions. Millspaugh (1892) reported some side effects that included impeding suffocation, profuse night sweat, nausea, and diarrhea.

Sources Consulted:

Occasionally, the Cherokees, according to Hutchens (1992), have used the dark ripe, purple berries for Spikenard jelly. They also have used the whole root as food. Spikenard, as a medicinal remedy, has been combined with other herbs and brewed into a tea. This tea was drunk to purify the blood. Walkingstick (1993) also indicated Spikenard drops were used extensively for earaches. The National Park Service has found Spikenard growing frequently at a wide range of

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elevations and has found it well distributed in the Smoky Mountains.

ST.-JOHN'S-WORT

St. Johns Wort

(Hypericum perforatum)

Plant Identification:

St. Johns Wort, a woody, rapidly spreading perennial belonged to the same family as Rose-of-Sharon. The yellow flowers, five-petaled with black dots on their margins, were found in bushy clusters and measured about one inch across (Foster and Duke, 1990). These were found on numerous slender branches. Oblong and dotted with translucent glands, the leaves when pinched produced a red oil and emitted an aroma reminiscent of turpentine (Wampler, 1988). From June to September, it grew one to three feet (sometimes up to five feet) and was found in fields with dry, light soils in Pike County State Forest.

History:

Europeans introduced St. Johns Wort to the United States, where it grew wild and spread rapidly. Named in honor of John the Baptist, St. Johns Wort was believed to release its blood-red oil on August 29, the time of the Saint's beheading. Wort was an old English word for plant. Another legend was that the plant,

during the days of strong belief in witchcraft, was collected on St. Johns Night, June 24. If collected on time, it afforded protection against witches and evil spirits. The Greeks used the herb for burns, as a diuretic, as a menstruation promoter, and for fever. They also burned the leaves to purify the air, drive away evil spirits, and to ensure healthy crops (Castleman, 1991). It was used as a Doctrine of Signatures plant because the red-oil was believed good for wounds. The settlers used it for colds and bronchitis during the 1800's and the physicians used the herb for the treatment of wounds. Millspaugh (1892) recorded its use for the nervous system.

Cherokee Uses:

The Cherokees used St. Johns Wort salve or fresh milky substance for treatment of external ulcers, snakebites, wounds, sores, cuts, bruises, and other skin problems. They prepared an herbal tea for bladder ailments, dysentery, diarrhea, respiratory diseases, bronchitis, and lung infections. The crushed plant was sniffed for nosebleeds and infants were bathed in a root decoction for strength (Hamel and Chiltoskey,

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1975). Other Native American tribes combined St. Johns Wort with Black Raspberry root in hot water; this concoction was used for the treatment of tuberculosis. The leaves were harvested when the plants bloomed, June through August. They were air dried and stored in a cool, dry place (Olds, 1975). The fresh blossoming plant was chopped and pounded to a pulp for making a salve (Millspaugh, 1892).

Day Family Remedies:

Great-Grandmother Day always had St. Johns Wort salve ready for large cuts and wounds. She ironed old linen until nearly brown (scorched) to sterilize it. Then this material was placed over the salve or wound so that it did not become contaminated. Healing was rapid, and this preparation rarely left any scar tissue.

Medical Research:

The active chemicals that were found in St. Johns Wort were choline, pectin, rutin, sitosterol, hypericin, and pseudohypericin. Since 1988, hypericin has been researched for AIDS treatment as a sedative, anti-inflammatory, and antibacterial drug. Also, it

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has reduced fever, decreased swelling of lymph nodes, improved appetites, and increased the energy of AIDS patients (Foster and Duke, 1990). However, it was not a cure. Recent research has indicated immune-stimulating chemicals and anti-bacterial, anti-fungal, and anti-inflammatory activity. In laboratory experiments when mice infected with the leukemia virus were injected with an extract of St. Johns Wort, they did not develop the disease. When given orally, it was equally effective. HIV infected mice had similar results. Side effects included skin burns, rashes, and blistering because of the chemical hypericin (James, 1989). Further research was needed for HIV and leukemia treatments of St. Johns Wort. Other studies supported the herb's use for wound healing and reduction of wound infections (Meuelo, 1988). Millspaugh (1892) reported the ingested plant sometimes caused mental depression, exhaustion, confusion, pupil dilation, increased heart beats, numbness, and shivering.

Sources Consulted:

Following an old custom, the Eastern Cherokee Nation have dried the St. Johns Wort and have used it as they have used the acorn. Prepared tea made from fresh leaves was used for soothing effect. Another use for the tea has included treatment for bronchitis. A salve made from the whole fresh St. Johns Wort plant has been used for its healing effects on bruises, compound fractures, gunshot wounds, bites, cuts, infections, and other types of open wounds according to Hutchens (1992). The plant was found occasionally at low elevations but was nowhere abundant in the Smoky Mountains as noted by the National Park Service.

UVA URSI

BEARBERRY

Uva Ursi or Common Bearberry

(Arctostaphylos uva-ursi)

Plant Identification:

Uva Ursi, commonly referred to as Bearberry (bears were fond of the fruit), was a hardy evergreen shrub that grew in dry, rocky, sandy soil and reached only a few inches in height. Its leaves, which turned bronze in winter, were leathery and paddle-shaped. The tiny, urn-shaped, waxy white flowers sometimes tinged with red flowers, were found with red berries among them (Foster and Duke, 1990). The fruits, which matured from August to late winter, were smooth, red, and edible. Uva Ursi belonged to the rhododendron family. Bearberry has been found growing in Pike County State Forest in southwestern Indiana.

History:

Uva Ursi leaves were used by the Romans to treat wounds; the Chinese used the plant as a diuretic for kidney and urinary problems. Because it grew in rocky places and kidney stones were called gravel, and because it had been used by the settlers and Native Americans as a treatment of kidney stones, Bearberry

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was listed with the Doctrine of Signatures (Castleman, 1991). Uva Ursi or Bearberry was officially listed in the US Pharmacopoeia from 1820 to 1936 as an astringent (Vogel, 1991). During the 1800's, physicians treated patients for diarrhea, dysentery, and kidney infections with this herb. Bearberry was listed in Hoosier Home Remedies (1985) as a useful diuretic and as a promoter that formed and excreted urine.

Cherokee Uses:

The Cherokees made a tea which was used as an astringent, diuretic, and urinary tract antiseptic. They also used Bearberry for bronchitis, for diarrhea, for skin sores, and for stopping bleeding. Sometimes they mixed dried leaves with tobacco and smoked this mixture called kinnikinnik (Weiner, 1972). Hamel and Chiltoskey (1975) indicated the Cherokees had used the berries for food and for beverages. The leaves were harvested in autumn before the first frost, then air dried by spreading them over a large area. Because of the thick, leathery texture, the leaves were difficult to dry. Sometimes they were chopped and pounded into a

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pulp to be used later as poultice which was stored in a dry cool place.

Day Family Remedies:

Grandfather used a Bearberry poultice for sores, scrapes, or insect bites on his animals, horses, cattle, and hogs. He sometimes placed fresh, crushed leaves over wounds to stop bleeding.

Medical Research:

Uva Ursi leaves had diuretic properties (Frohne, 1970). They contained the chemical arbutin, which has been found in many over-the-counter creams to treat wounds and sores (Castleman, 1991). Sometimes, when drunk, the tea caused the urine to turn dark green and induced vomiting, convulsions, and stomach upset in some cases; however, Millspaugh (1892) recommended it highly for diseases of the kidneys, the bladder, and the urethra passage.

Sources Consulted:

Hutchens (1992) noted at the present time Bearberry leaves have been mixed with tobacco leaves and was called kinnikinnick. This mixture was smoked and was used in certain ceremonial events. For those

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with diabetes, Bearberry tea has been used to reduce sugar levels. The tea has also been used as a medicinal remedy to treat inflammations of the urinary tract, chronic affections of the kidneys, and pus discharge from the bladder. It was occasionally found at low elevations in the Smoky Mountains. The author was able to purchase some dried leaves for medicinal purposes.

WHITE WILLOW

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White Willow

(Salix alba)

Plant Identification:

The White Willow tree had rough, grayish bark and branches that were pliable; it grew up to sixty feet. Its leaves were lance-shaped, finely-toothed, and lined with silky hairs. Long catkins appeared with leaves in the spring (Foster and Duke, 1990). They were found in moist woods, along stream edges in Pike County State Forest and along the banks of the Wabash River in Harmonie State Park.

History:

White Willow was a pain remedy used by the Chinese since 500 B.C. The settlers used White Willow tea for relieving pain, reducing fevers, and decreasing inflammation. It was officially listed in the US Pharmacopoeia from 1882 through 1926 and in the National Formulary from 1936 to 1955 as an antispasmodic (Vogel, 1970). Tyler (1985) noted that White Willow bark tea was an old Hoosier remedy used to cure rheumatism. He also added that the use of salicylate and anti-inflammatory agents were well known

in the treatment of arthritic conditions. This explained the use of Willow bark tea with its content of salicin.

Cherokee Uses:

The Cherokees chewed White Willow twigs or bark for tonics and for hoarseness, as well as prepared a poultice from the bark. They concocted a bark tea for treatment of pain, chills, and fever. They also used the twigs, bark, and catkins (pussy willows) for herbal remedies. Even the bark was often ground into flour and baked into a bread. Other uses included using the bark and twigs in making baskets and boiling or soaking the bark in water for washing the hair and encouraging it to grow (Hamel and Chiltoskey, 1975). They collected the bark in the spring as sap began to flow when it was more easily removed.

Day Family Remedies:

Grandmother Day shaved the inner bark, simmered the shavings, and prepared White Willow tea, which was drunk to reduce fevers. The Catkins from the White Willow tree, she mixed with other wild, dried flowers for winter decorations.

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Medical Research:

In 1828, French and German chemists found fresh White Willow bark contained a chemical, salicin, which decomposed into salicylic acid in the human body. From salicin, aspirin (acetylsalicylic acid) was created. Another herb, Meadowsweet, contained the same chemical (Castleman, 1991). Research found aspirin reduced risk of heart disease in males and delayed cataract formation in laboratory animals. It reduced fever, pain, and inflammation in other studies (Anon, 1988). For women, White Willow contained enough salicylate to suppress the action of prostoglandins, which was involved in menstrual cramps. Recent diabetes studies have suggested more research has been needed to find how White Willow has reduced blood sugar (glucose) level in diabetic humans (Sallis, 1989). Side effects have included gastrointestinal conditions and stomach ulcers.

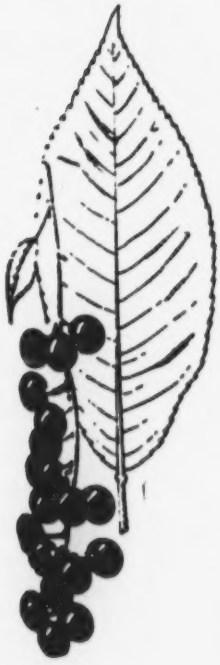
Sources Consulted:

According to Stone (1991) the present day use of White Willow to relieve certain ailments included everything from insomnia to rheumatism. Teas have been

made from the inner bark for the relief of fever, chills, rheumatic pains, colds, and dysentery. The leaves have been applied externally on cuts and sores as an astringent. The Cherokees have also used the young pliable shoots to weave baskets and as charcoal pens for drawing.

Defoe, Langdon, Rock (1989) indicated White Willow trees were rare in the Smoky Mountains but when found were usually near an old homestead. They were more common at lower elevations or near the foothills of the Smoky Mountains.

WILD CHERRY



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Wild Black Cherry

(Prunus serotina)

Plant Identification:

The Wild Black Cherry tree that has been able to reach heights of ninety feet has been a beautiful wooded tree that has flowered from April to June. The bark was black and rough but reddish beneath, producing a pleasant aroma. The leaves were oval to lance-shaped, with brown hairs on the midrib. The branches supported small clustered, elongated, white flowers that blossomed in late spring or summer (Foster and Duke, 1990). In late summer, blackish fruits, the size of large peas, developed. The tree grew in fertile soil under full sunlight and has been found in many areas throughout southwestern Indiana.

History:

The settlers used Wild Black Cherry to treat poor circulation, lack of appetite, and ailments needing sedation. They also treated coughs, fevers, colds, and sore throats with inner bark tea. It has been listed in US Pharmacopoeia from 1820 to present. The bark was officially listed for its properties as a sedative and

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use of the cherries as flavoring as well as its medicinal values in cough medicines (Castleman, 1991). With the exception of sassafras, there were no more popular home remedies than those using Wild Black Cherry (Vogel, 1970). Hoosiers, according to Tyler (1985), mixed Wild Black Cherry with other herbs and drank the tea to thin the blood plus used it as a spring tonic. The cherries were eaten daily to cure gout: a syrup of Rhubarb and Black Cherry was given for diarrhea and dysentery, and it was also taken for jaundice and hepatitis. Even bark tea was drunk to relieve the discomforts associated with measles.

Cherokee Uses:

To relieve pain in the early stages of labor and childbirth, Cherokee women were given an herbal tea prepared from the inner bark of the Wild Black Cherry tree. The Native Americans seldom experienced frostbite; they insulated themselves with animal skins, fat, and oils; however, when frostbite occurred, boiled leaves and pounded Wild Black Cherry bark were applied or a decoction was poured over the frostbitten area (Weiner, 1972). The fresh leaves were steeped in

water; the tea was drunk for coughs, diarrhea, sore throats, fever, and indigestion. Wild Black Cherry was also used to treated hemorrhoids, sores, and burns. The bark was collected and then peeled in the fall when it contained the greatest concentration of chemicals and was highest in medicinal value (Weiner, 1972). The fresh, black berries were picked in late August or early September and eaten fresh or dried for future use. They were also pulverized and combined with dried meat to be used in soups, for carvings, as lumber, and for furniture (Hamel and Chiltoskey, 1975).

Day Family Remedies:

A Day family Wild Cherry cough syrup was made by using the water from boiled bark, honey, and lemon. If that did not cure the problem, drinking Grandfather's Wild Cherry Wine did. Dried Wild Cherry smoked chips were used to cure meats in the autumn. Since the cherries were slightly bitter, they were eaten with sugar, honey, or molasses and milk. The berries were also used to make jam or jellies.

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Medical Research:

All parts of the plant, when steeped in water, duplicated Prunasin, (a Cyanide-like chemical), which converted to hydrocyanic acid. If boiled, its medicinal use was destroyed. The fruit pits also contain hydrocyanic acid, which has the tendency to cause loss of balance, difficult breathing, and convulsions. Hydrocyanic acid was also a cyanide-like poison. Large amounts of Wild Cherry leaves were sometimes eaten by grazing animals (cattle and horses) that were especially susceptible to poisoning. The wilted leaves were very toxic if eaten by man or beast. Horses developed colic from doing so and often died. Laboratory animals experienced birth defects; however, small amounts were considered safe. Bark had to be peeled for medicinal use (Castleman, 1991).

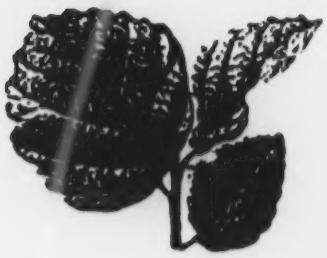
Sources Consulted:

Stone (1991) stated that the Cherokees have drunk the Wild Black Cherry bark as a tea to treat diarrhea and lung ailments. The raw, sour fruit had been eaten to cause sweating and to reduce fevers. The bark tonic had been used to expel worms and also had been applied

externally as a poultice to heal ulcers and abscesses. Other remedies included Wild Cherry tea flavored with honey to relieve coughing. The berries have been used as the main ingredient in Wild Cherry Wine also. For herbal hair care, a portion of dried cherry bark and peanut oil had been mixed to make a conditioning oil for the hair. After having been treated for several minutes, the hair was shampooed with a Wild Cherry shampoo, which used dried cherry bark, boiling water, and a mild soap. Finally, a Wild Cherry herbal rinse of cherry, bark, water, and lemon had been poured over the hair several times.

The National Park Service (1992) indicated the Wild black Cherry was common and dominant throughout the Smoky Mountains.

WITCH HAZEL



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Witch Hazel

(Hamamelis virginiana)

Plant Identification:

A perennial, Witch Hazel was a deciduous shrub that grew eight to fifteen feet in height, dropped its leaves each autumn, and had twisting stems that forked into flexible, hairy branches. Bright yellow flowers appeared in late fall during November and December after the leaves had dropped and as the fruits of the previous year had ripened (Weiner, 1972). They had long, slender petals with a spider-like appearance. Seeds in the middle of the flower were edible and compared to hazelnuts. Leaves were wavy-toothed with scalloped margins and uneven wedge-shaped bases (Foster and Duke, 1990). Witch Hazel has been found in low damp woods and moist rich areas with partial shade in Pike County State Forest and the Harrison-Crawford State Forest.

History:

The settlers used Witch Hazel for inflammation, swelling, bruises, and cuts. The forked branches served as divining rods in searching for water. The

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Latin name referred to Virginia, but the plant has grown over the entire Eastern part of United States, including Indiana. The leaves were listed in the US Pharmacopoeia from 1862 to 1916 and the National Formulary as an astringent (Castleman, 1992). Tyler (1985) listed several Witch Hazel home remedies for arthritis, rheumatism, and nosebleeds. For the nosebleeds, Hoosiers crumbled dry Witch Hazel leaves and stuffed them into the nose. They relieved skin redness by boiling leaves and bark together and then applying the mixture to the inflamed areas.

Cherokee Uses:

The Cherokees prepared a leaf and tea concoction which was rubbed on the legs to keep the muscles limber and to relieve lameness (Weiner, 1972). Powdered leaves were made into tea and then drunk to stop internal bleeding, to prevent miscarriage, to treat colds, fevers, and sore throats, and to ease menstrual cramps. Boiled leaves and bark were made into a salve for cuts, bruises, bites, scalds, burns, inflammations, and painful tumors. The steam from twigs that were boiled in water was a treatment used for muscular

aches, strained backs, painful joints, and eye inflammations (Vogel, 1970). Leaves, twigs, and bark were collected and stored throughout the summer months. The edible seeds were harvested when mature.

Day Family Remedies:

The Day family mixed boiled Witch Hazel leaves with alcohol or whiskey (moonshine) and used this concoction on sore muscles or strained backs. Great-Grandfather had a favorite Witch Hazel stick, which he called upon to find water. He often had much success finding underground water tables.

Medical Research:

The chemical, tannin, was an astringent that constricted blood vessels. Side effects have included skin rashes and irritation. Several commercial preparations have used Witch Hazel in extracts, ointments, and eye washes. It was used as an astringent for piles, skin toner, and eye problems. Hemorrhoid salves included Witch Hazel for minor pain and itching (Millspaugh, 1892).

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Sources Consulted:

According to Stone (1991), Witch Hazel had been a popular herbal beautify aid when added to vodka and chamomile. The ingredients were mixed together in a jar and allowed to stand for several days. It was then used as an astringent, and applied cold; however, it was always used externally.

At the Museum of the Cherokee Indian in Cherokee, North Carolina, a chart of several types of plant usage indicated that Witch Hazel extract has been widely used during the present as a skin freshener lotion, and as a treatment for insect bites, bruises, sore muscles, scratches, cuts, and rashes. Also, Cherokees have cut the stems into small petals that resemble flowers. This has been done by peeling back the bark in small strips. These attractive stems have been placed around their homes as decorations. Witch Hazel was common in the Smoky Mountains and was found growing in the low to middle elevations.

YARROW

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Yarrow

(Achillea millefolium)

Plant Identification:

Yarrow was a hardy perennial, covered with tiny hairs and soft leathery leaves. Family members have included the Daisy, Dandelion, and Marigold; other names used have been Woundwort, Thousand Weed, and Nose Bleed (Weiner, 1972). Numerous tiny, white, pink or purple flowers developed into dense clusters that bloomed from May to October. Each flowerhead had five petal-like rays (usually wider than long) with three teeth at top (Wampler, 1988). Stalkless, green leaves were divided into thousands of tiny leaflets; hence, its name, Thousand Weed. The fern-like foliage leaves were long near the base of the plant and shortened higher on the stem (Foster and Duke, 1990). It grew to three feet and was found in abandoned fields, along roadsides, and in waste areas throughout Southwestern Indiana. Full sunlight was needed for growth.

History:

In Greek times, Achilles crushed Yarrow leaves and placed them on warriors' wounds; hence, its genetic

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name, Achillea. Also, Millefolium meant thousand-leaved, Yarrow's other genetic name. Soon after the colonists introduced Yarrow into America, it spread quickly, and all Native Americans began to use the herb (Castleman, 1991). During the Civil War, Yarrow was known as soldiers' woundwort; it was placed on battle wounds. Settlers also used Yarrow for bladder disorders, ulcers, and kidney problems. Dried leaves and tops were listed in the US Pharmacopoeia from 1863 to 1882 as a stimulant, as a menstruation promoter, and as a tonic (Vogel, 1970). Tyler (1985) stated that Hoosiers had used Yarrow for rheumatism, to staunch the flow of blood from a cut, to relieve colds, and to treat cuts, abrasions, and bruises. Yarrow was prepared as a salve, as herbal tea, and as a substance to be chewed. When chewed, the leaves were also packed around a tooth to relieve toothaches and gum problems.

Cherokee Uses:

The Cherokees crushed dried leaves, prepared a salve and applied the salve on wounds to stop bleeding (Weiner, 1972). Sometimes crushed fresh leaves were used as a poultice for skin sores, skin rashes,

hemorrhoids, and nosebleeds. An herbal tea was used for sweat-inducing qualities, for reducing fevers, and for the relief of colds and flu. Hamel and Chiltoskey (1975) wrote that the leaves were an astringent and Cherokees used it for hemorrhages, spitting blood, bloody piles, bloody urine, and bowel complaints. The Native Americans used the Common Yarrow for many ailments. The leaves were harvested when plants were in bloom, usually May to October. They were then used fresh or dried in partial shade and stored for later use (Olds, 1975).

Day Family Remedies:

Grandmother Day prepared a salve by crushing the leaves and mixing them with rendering lard or "hog fat". This salve was placed on small wounds, scratches, and sores. She sometimes used the fresh, crushed leaves to stop bleeding.

Medical Research:

Research has found that Yarrow contained a dark blue oil, cineol, which had stimulating properties (Weiner, 1972). Over 100 chemical compounds were identified from this plant. Some of theses have

included achilletin and achilleine that were blood coagulators and hemorrhage controllers. Camphor, menthol, rutin, and salicylic were anti-inflammatory and pain-relieving. Tannins, terpineol, and cineol were antiseptic. Over one hundred biologically active compounds have been identified with this plant (Castleman, 1991). One limited study indicated Yarrow protected the liver from toxic chemical damage. In some cases, Yarrow caused dermatitis, in others it caused the urine to turn dark brown. In some cases, physiological side effects have caused burning, considerable pain in the abdomen, and diarrhea (Millspaugh, 1892).

Sources Consulted:

According to Stone (1991) Yarrow mixed with alcohol or vodka and a few drops of tincture of benzolin made an excellent astringent that was externally placed on the skin when it was cold. Another Yarrow use had been an herbal steam facial. Yarrow and chamomile flowers were mixed with boiling water in a large bowl. The face was placed near the steam and the moisture absorbed for a facial uplift.

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Finally, dried yarrow flowers, rosemary leaves, and peanut oil were mixed together for a skin conditioning oil.

The National Park Service (1992) indicated Yarrow was found frequently and in a wide range of elevations throughout the Smoky Mountains. It was very common around Cherokee, North Carolina.

YELLOWROOT

Yellow Root

(Xanthorhiza simplicissima)

Plant Identification:

A low growing hardy shrub, Yellow Root was in some areas called Goldenseal but it was a different plant from Goldenseal (Foster and Duke, 1990). Yellow Root belonged to the Buttercup family and acquired its name from the thick deep-yellow roots with yellowish bark. The five cleft, toothed leaflets were on long stalks, and the light brown-purple flowers were beautiful (Wampler, 1988). Yellow Root has grown up to two feet in height and has usually been found in colonies on shady stream banks and moist woods or thickets. Lincoln State Park was the area in which it was found for this study.

History:

Yellow Root was used as a stomach remedy by the settlers. It was entered in the US Pharmacopoeia from 1820 to 1882 as a tonic (Vogel, 1970). Tyler (1985) stated that Hoosiers combined Yellow Root with other herbs and used this mixture as a blood thinner. Root tea was drunk to improve the appetite and the digestion

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and to relieve stomach ailments. The Hoosiers also chewed Yellow Root to relieve sore mouths and canker sores.

Cherokee Uses:

The Cherokees boiled the roots and made a root tea that was used as a blood tonic, as a remedy for stomach ailments, colds, jaundice, cramps, sore throats, menstrual disorders, and the relief of constipation as well as a rinse for mouth sores (Vogel, 1970). The Cherokees used the root's yellow pigment as a dye. The roots were sometimes chewed to relieve many ailments instead of drinking the prepared tea. Yellow Root was also used as an astringent for piles (hemorrhoids). A decoction, made from the root, was given for pain in childbirth (Weiner, 1972). Hamel and Chiltoskey (1975) noted that the Cherokees used Yellow Root as a tonic, as a poultice for sore eyes, as a tea for nerves, and as crushed leaves for cancer. Roots were collected during the late summer months, sliced and dried in the shade, then stored in a dry, cool place (Olds, 1975).

Day Family Remedies:

The Day family used Yellow Root extract for yellow dye, Bloodroot for red dye, and onions for brown dye. Eggs were dyed with these natural colors for children during the Easter holidays. Grandmother also prepared a "gargle" or "mouthwash" from Yellow Root tea for sore throats and mouth sores.

Medical Research:

Yellow Root contained the chemical, berberine, an anti-inflammatory chemical. Yellow Root, when given to experimental animals, produced a drop in blood pressure. Other studies showed berberine stimulated secretion of bile and was useful in treating patients with liver cirrhosis (Foster and Duke, 1990).

Sources Consulted:

From early times to the present day, Yellow Root tea has been used extensively by the Cherokees for sore mouths, sore throats, or stomach problems. Mr. Kingfisher (Talhlequah, OK) indicated that the tea was prepared from beaten, pulverized, and dry roots. Several Oklahoma Cherokee Clans have continued to make

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a root dye that has been used for coloring baskets and for making home decorations.

According to Walkingstick (1993), the Cherokees have continued to prepare a Yellow Root tea as a medicinal remedy for stomach ailments, colds, sore throats, and mouth sores. The yellow dye for baskets and decorations was obtained by boiling the basket splints with this dye source as indicated on the plant chart at the Museum of the Cherokee Indian, Cherokee, North Carolina. Yellow Root was found frequently in low to middle elevations in the Smoky Mountains.

CONCLUSION

The people of the Cherokee Indian Nation suffered from many illnesses and diseases. They used mostly plants and spiritual guidance to treat their health problems. The early settlers used many of the remedies that they had learned from the Cherokees, but several of the remedies were not recorded and had been lost, ignored, forgotten, or altered with the passage of time. The Cherokee herbal methods of treatment were based on experiments, trial and error, and reasoning. Some remedies were useless but usually rational and often effective. An astonishing number of Native American drugs and treatments have proved to be of enormous value. The Day family used plants and herbs for medicinal purposes up to the time of the discovery of penicillin and other antibiotics. The nearest doctor and hospital was several miles from their home; therefore, the family depended on the natural environment for medicinal cures. As a child, the author remembers seeing dried herbs hanging in various places, crushed or pulverized herbs stored in jars, and

other herbs being used daily either as teas, salves, or poultices. The author has used her grandparents "cures" and has found them most effective on animals and humans.

Certain herbs and plants have been adopted by the pharmacopeias and have currently been tested; an example would be the use of St. Johns Wort for treatment of AIDS, and Mayapple for small-cell lung cancer. Herbs have become a very important and integral part of modern medicine. Many over-the-counter drugs of "modern medicine" have contained as active ingredients herbs that have been chemically synthesized and mass-produced. Perhaps more use, research, and knowledge of Cherokee natural herbal remedies would replace more of the synthetic compounds that have occurred in many prescription drugs. Often use of natural remedies has proved to be safer than use of synthetic ones. Unfortunately, most American plants have yet to be investigated in terms of pharmacology, chemistry, and medicinal cures. Often studies that have been several years old have represented the latest available information on herbs. Little has been done

in such research in the United States. Most of the research has been conducted in Germany, Eastern Europe, and Asia. Updated and more current research has been needed by American scientists.

As of January 6, 1993, the National Institute of Health has recognized the importance and the use of herbal medicine as a form of treatment for certain types of illnesses. The institute also encouraged further study and research on various plants for medical value.

Because of dwindling natural resources, educators have had to teach a deeper appreciation of plant usage, encourage a commitment to conservation of these plants, and help people gain a deeper sense of their relationship to their environment and to the natural world. Hopefully, mankind, including educators, will promote an interest in the conservation, collection, identification, preservation, and healing properties of herbs.

Old herbal cures and remedies, better treatments, greater appreciation of Cherokee cultural heritage, and knowledge of Cherokee Herbal Remedies will add a new

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dimension and appreciation to people's lives.

C H A P T E R III

C H E R O K E E H E R B A L R E M E D I E S

F A C U L T Y C U R R I C U L U M H A N D B O O K

AND

L E S S O N P L A N S

CHEROKEE HERBAL REMEDIES

CURRICULUM GUIDE

This guide is an accelerated course outline designed for students who are interested in plant identification, conservation, history, Cherokee uses, and current developments and research of herbal medicinal uses. It is designed to foster the cognitive, affective, and psychomotor domains. The curriculum is structured for a two day workshop--6 hours per day. Learning occurs as students actively participate in field experiences, by the process of inquiry, by critical thinking techniques, by playing games, and through small group discussions.

C H E R O K E E H E R B A L R E M E D I E S
C O U R S E T E X T, R E F E R E N C E S
A N D E V A L U A T I O N

Cherokee Herbal Remedies

COURSE TEXT

Several references will be reviewed and studied. There is no single textbook. In addition, students may use literature from the sciences, anthropology, history, and other sources, such as medical journals, pamphlets, and oral experience. There is much material that contains excellent advice and knowledge on plants, herbs, and herbal remedies.

Cherokee Herbal Remedies

EVALUATION

Evaluation of this course will be by student and instructor evaluation of the cognitive, affective, and psychomotor domains. The evaluations will include in-class and field experiences participation, knowledge exercises, and plant identification skills, techniques, and effectiveness.

Student self-evaluation	25%
Instructor evaluation	25%
Participation and exercises in skills and techniques	25%
Improvement in identification skills, knowledge, and techniques	25%

Broken down into percentages:

90 - 100 = A range
80 - 89 = B range
70 - 79 = C range
60 - 69 = D range
Below 60 = F

A = Superior	B- = Good	D+ = Below average
A- = Excellent	C+ = High average	D = Poor
B+ = Outstanding	C = Average	D- = Near failure
B = Very good	C- = Low average	F = Failure

C H E R O K E E H E R B A L R E M E D I E S

L E S S O N P L A N S

F A C U L T Y

L E S S O N P L A N
S E S S I O N O N E

Cherokee Herbal Remedies

LESSON PLANS

FACULTY

SESSION ONE: (approximately two hours)

Objectives:

A. The instructor and students will participate in the activities that introduce them to one another.

B. The instructor and students will understand the goals, objectives, and evaluation procedures of the class.

C. The instructor and students will discuss safety procedures, poisonous and nonpoisonous plants, and first aid techniques to follow during field experiences.

D. The instructor and students will discuss the use of plants throughout history and current uses of plants.

E. The student will have knowledge concerning how plants were selected, and the parts used.

F. The student will participate in laboratory experiences with preparation of plants into teas, poultices, and salves.

Equipment and Materials:

A. Curriculum Handbook, name tags, plant pictures for

game scavenger hunt, and examples of plants. (Dried and fresh)

Procedures:

A. Introductions, energizers, and distribution of name tags.
   1. Introduction of students and instructor
   2. Students discuss what they want to accomplish during the course.
   3. Play energizer games.

B. Students and instructor will discuss course philosophy, references, and learning outcomes.

C. Students will be prepared to read curriculum guide and discuss, articulate, comment, and ask questions concerning:
   1. How animals and man have used plants as medicine throughout the ages.
   2. How people have used herbs with medicinal chemicals daily without realizing the values of such plants.
   3. What four major traditions are included in herbal healing.
   4. How many plants have medical value for humans and how many prescriptions have contained a drug from a natural plant source.

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5. How early settlers came to America and the remedies they used that were gotten from the Native Americans.
6. Where valuable information on Indian Herbal Remedies was recorded and used.

D. The instructor and students will review how the Native Americans decided which plants were valuable, useful, and worthwhile.
   1. "Doctrine of Signatures"
   2. Trial and Error, tasting, sniffing.
   3. Relying on the supernatural

E. Class discussion on what parts of the plants were used for medicinal purposes.
   1. Bark
   2. Stems
   3. Roots
   4. Seeds
   5. Fruits
   6. Nuts
   7. Flowers
   8. Leaves

F. Discussion on Native American expertise on gathering, storing, preparing, and utilizing the different plant species.

1. Annual plants
2. Biennial herbs
3. Different seasons
4. Dried plants
5. Fresh state
6. Exposure to light, dry, cool places
7. Time of process
8. When bark was gathered
9. Why flowers were used infrequently
10. Time fruits were picked
11. When seeds were harvested
12. Time nuts were collected and stored
13. How roots and stems were gathered
14. How herbs were preserved

G. Instructor and students will examine and have knowledge about several dried herbs. They will also participate in a laboratory experiment involving preparation of plants by:

1. Infusion
2. Decoction
3. Fermentation
4. Poultice
5. Plaster
6. Salves

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H. End of First Two Hour Session: 15 minute break.

L E S S O N P L A N
S E S S I O N T W O

Cherokee Herbal Remedies

LESSON PLAN

FACULTY

SESSION TWO: (approximately two hours)

Objectives:

A. The instructor and students will review and answer any questions concerning information taught in first sessions.

B. The instructor and students will review history of the Cherokee Nation.

C. The instructor and students will discuss plant identification, history, Cherokee Uses, Day Family Remedies, and medical uses of herbs and plants.

D. The instructor and students will discuss recent experiments and studies that have been done.

E. The instructor will caution the student that this course is for the purpose of studying different herbs and identifying certain plants but is <u>not</u> a class for medical purposes.

F. The students will participate in games and activities that will enhance their knowledge of plants and herbs.

Equipment and Materials:

A. Herbal Word Search Game and Herbal Password Sheets, Curriculum Guide, pencils, and plants.

Hog and bear fat. Containers for preparing herbal teas, salves, and poultices.

Procedures:

A. Are there any questions concerning the previous session's information and laboratory experiment?

B. The class will begin discussions on Native American spiritual guidance, Medicine Man, paraphernalia, and charms.

1. Ideas, concepts, and uses of plants
2. Medicine Man (Shaman)
3. Paraphernalia, equipment
    a. Special costumes
    b. Medicine Bundle
    c. Charms
    d. Medicine Stick
    e. Mortar and pestle for mixing
    f. Syringe
    g. Medicinal Herb Bag
    h. Plant Strength Ceremonies
    i. Patient Faith
    j. Prayers and Ceremonies

C. The class will cover knowledge of the Cherokees during the 19th century to present time.

1. Farmed, raised cattle, owned slaves, and raised cotton
2. Became Christians
3. Villages
4. Sequoyah
    a. Invented alphabet
    b. Written language
5. Bilingual newspaper 1828
6. Lands coveted by Whites
    a. Georgia
    b. Alabama
    c. Mississippi
    d. Florida
    e. North Carolina
    f. South Carolina
7. Five civilized tribes included:
    a. Cherokee
    b. Chickasaw
    c. Choctaw
    d. Creek
    e. Seminole
8. Removal to Western territory; Oklahoma
    a. President Jackson--1838
    b. 60 thousand Native Americans

c. Trail of Tears

9. Cherokee Village, North Carolina

a. Escapes

10. Establishment of three-part government

a. Executive Branch

b. Legislative Branch

c. Judicial Branch

11. Mastering Reservation Life

a. Drafted new Constitution--1839

b. 1840 Implemented at Tahlequah, OK.

c. Public schools

d. Cherokee Advocate

D. General discussion of Plant Identification, History, Cherokee Uses, Day Family Remedies, and Medical Research.

1. Twenty-five plants to be discussed

a. Common and Botanical names

b. Descriptions

c. Location

2. History of Plant

a. Past use

b. Records

c. Remedies

d. Usage

3. Cherokee Uses and Day Family Remedies
    a. Medicinal uses
    b. Harvesting, gathering, conserving, preparing, storing.
    c. Parts of plants used
    d. Different ailments/diseases
4. Medical Research
    a. Chemical components
    b. Experiments and Studies
    c. Warnings; Safety
5. Consulted Sources
    a. Present time
    b. New uses

E. Pass out game called, "Herbal Word Search". This will familiarize the students with the name of plants.

F. Have students note the different charts in curriculum guide that can be used as a reference guide during active participation of games and activities.

G. Use the Overhead to Identify the different plants and what to look for during the field experiences sessions 5 and 6. Also show colored pictures found in different textbooks.

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H. End of Second Two Hour Session: 15 minute break.

L E S S O N P L A N
S E S S I O N T H R E E

Cherokee Herbal Remedies

LESSON PLAN

FACULTY

THIRD SESSION: (approximately 1 1/2 hours)

Objectives:

A. The instructor and students will review and answer any questions concerning information given to the class during the 1st and 2nd sessions.

B. The instructor and students will continue to participate in discussion, clarification, and identification of the twenty-five plants that will be hunted during field experiences.

C. The instructor and students will review the overhead charts of the different plants and will continue to stress the environmental areas where the plants can be found.

D. The instructor and students will review and discuss proper attire, first aid, and snacks for field experiences.

E. The students will play games to enhance and reinforce their knowledge of the plants studied.

F. The students will further their knowledge and experiences by studying the curriculum guide prior to the next session.

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G. The instructor and students will share experiences of family remedies that had been handed down through their families.

Equipment and Materials:

A. Curriculum Handbook, overhead projector, overhead charts, photographs of plants, wild plant identification charts, examples of books, and games and activities.

Procedures:

A. Allow time if there are any class questions or discussions concerning the twenty-five plants that were shown on the overhead.

B. Have students play the game Herbal Password to reinforce and be able to identify the plants they will be studying and hunting during field experience.

C. The instructor and students will continue to discuss plant identification. The instructor and the students will also refer to the Curriculum Guide on History, Cherokee Uses, Day Family Remedies, Medical Research, and Sources consulted. The twenty-five plants will be covered.

    1. The charts in the back of the Curriculum Guide will be used as references.

D. Encourage the students to give examples of herbal home remedies that have been handed down through their families.

E. The instructor will cover proper procedures in case of an accident.

F. The instructor will also cover the proper attire needed for field experiences.

G. Have students play the game Blackboard Herbal Baseball.

H. End of Third Session. Tell students the time to meet, where, and to bring a notebook, snacks, water, pen, pencil, Curriculum Guide, camera, and enthusiasm.

L E S S O N P L A N

S E S S I O N F O U R

Cherokee Herbal Remedies

LESSON PLAN

FACULTY

FOURTH SESSION: (approximately 30 - 45 minutes)

Objectives:

A. The instructor and students will discuss, clarify, and review benefits, values, shoes, clothing, risk factors, safety, and emergencies.

B. The students will participate, practice, and apply skills and techniques in hunting certain plants.

C. The instructor and students will review what characteristics to look for in poisonous plants.

D. The student will understand the value of plants and proper harvesting of plants; how the Native American valued the environment.

E. The students and instructor will cooperate, enhance, and enjoy working with one another in finding and studying the different species of plants.

Equipment and Materials:

A. First Aid kit

B. Curriculum Guide, charts, notebook, recording sheets, camera.

C. Food, drink, and containers.

Procedures:

A. Continue review, classroom discussions, analysis, participation, safety factors, terminology, and answer any questions concerning previous session presentations.

B. Review with students how to find plants--the techniques and skills to follow.

    1. Remember "leaves of three" leave them be.

C. Continue to discuss the knowledge and attitudes about the purpose and values of herbal remedies. Discuss leaving plants as they are. The Native Americans believed in protecting the environment.

D. Explain where students are meeting for field experiences. Divide the group into partners. Explain approximately how long it will take to get there.

E. Have students keep a complete and careful record of any problems, changes, and recommendations they might wish to discuss during the evaluation session.

F. Store snacks, water and food properly in containers.

G. Good luck on finding the plants discussed.

L E S S O N P L A N
S E S S I O N F I V E

Cherokee Herbal Remedies

LESSON PLAN

FACULTY

FIFTH SESSION: (approximately 4 1/2 to 5 hours)

Objectives:

A. The students will have reviewed the skills and techniques necessary for finding the different plants.

B. The students will continue to review, discuss, implement, and have fun, enjoyment, recreation, and friendships while participating in hunting plants.

C. The instructor and students will continue to update, compensate, and review the different problems in finding certain plants.

D. The students will travel as a group to the designated field experience area.

E. The students will have acquired skills and techniques that will be used in the field experiences.

Equipment and Materials:

A. Same as Session Three

Procedures:

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A. Have students continue to apply the knowledge, skills, techniques, and courtesies learned in previous sessions.

B. Have students continue to review and apply techniques used to overcome any problems that developed during participation.

C. Continue to encourage students to have fun, enjoyment, recreation, and friendships while hunting for the many variety of plants.

D. Have students in a group type participation experiences developed by the instructor that combines all of the knowledge previously discussed and/or studied.

E. Continue to have students practice finding the different plants, and as a group, or individually with the instructor, evaluate the programs of the students as well as their efforts, skills, and techniques.

F. Have students take a 15-20 minute break, have a snack, and have a "show and tell" time.

G. After the break, continue to look for the various plants.

H. At the end of the session, have everyone bring their experiences, laboratory projects, and

assessments for evaluation during the following session.

I. Everyone meets at a specific time and travels as a group back to the classroom.

L E S S O N P L A N
S E S S I O N S I X

Cherokee Herbal Remedies

LESSON PLAN

FACULTY

SIXTH SESSION: (approximately 1/2 hour)

Objectives:

A. The instructor and students will comment, exchange ideas, and have classroom discussion concerning previous field experiences.

B. The students will discuss the evaluation procedures.

C. The instructor and students will prepare a constructive evaluation and critical analysis of course activities.

Equipment and Materials:

A. Curriculum Guide, skill sheets, written comments, and grade sheets.

B. The plant check sheets and some plants that were observed or found.

Procedures:

A. The instructor and students discuss grading as determined by evaluation procedures.

B. The instructor and students will write down and verbally include comments, ideas, suggestions, and

criteria that might improve the quality of the course.

C. Have discussion of all problems students encountered while searching for the different plants. Try to extend help for the students with any particular problems that they found. Include fellow class members comments or suggestions on the way they solved the problem. Encourage peer tutoring as this often accounts for 90% of the learning.

D. Closure of the session. Anything students wish to discuss concerning any aspect of the course. Continue to encourage them to practice and participate, studying, and finding the different plants, and to practice good conservation. Remember the Native Americans practiced good environmental techniques.

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APPENDICES

PLANT/HERB
FIELD EXPERIENCE
STUDENT CHECK SHEET

This is the checklist on twenty-five identified plants and herbs. A ( ) will identify that the plant was found.

Location Where Found

1. Black Cohosh or Squawroot_____
2. Bloodroot or Pucoon_____
3. Boneset or Thoroughwort_____
4. Burdock or Common Great_____
5. Catnip_____
6. Comfrey_____
7. Dandelion_____
8. Garlic_____
9. Goldenseal_____
10. Mayapple_____
11. Milkweed or Common_____
12. Mistletoe_____
13. Patridgeberry or Squaw Vine_____
14. Pennyroyal_____
15. Senna or American Wild_____
16. Skullcap_____
17. Snakeroot_____
18. Spikenard_____
19. St. Johns Wort_____

20. Uva Ursi or Bearberry_____

21. White Willow_____

22. Wild Black Berry_____

23. Witch Hazel_____

24. Yarrow_____

25. Yellow Root_____

Comments:_____
_____
_____
_____

SCAVENGER HUNT
MIXER/ENERGIZER

Find a person who has the following and have that person sign your sheet. Use a person's name only once. The one getting the most names within 5 minutes receives a prize.

1. Red Lipstick_____
2. Blue Eyes_____
3. Brown Belt_____
4. Drummer Boy Quarter_____
5. Paper Clip_____
6. Ford Car Key_____
7. Yellow Paper_____
8. Papermate Pen_____
9. Timex Watch_____
10. Picture of Husband (Wife)_____
11. Brown Eyes_____
12. First Name with Initial A_____
13. Black Shoes_____
14. From-------County_____
15. Gold Wedding Ring_____
16. Clipboard_____
17. Hairpin_____
18. Lucky Piece_____
19. Calendar_____
20. Comb_____

21. Blue Shirt_____
22. Shoe Lace (white)_____
23. Coin Purse_____
24. Red Purse/Billfold_____
25. Pinkie Ring_____
26. Person with 4 or more children_____
27. Envelope_____
28. Key Chain_____
29. Rain Cap_____
30. Silver Glasses_____
31. Class Ring_____
32. Rebok Tennis Shoes_____
33. Pink Fingernail Polish_____
34. Emery Board_____
35. Stick of Chewing Gum_____

HERBAL WORD SEARCH

DESCRIPTION:

Everyone competes to see who can find the most words in the shortest time. After finding the word, that person also needs to identify the herb. The winner is the person who can find and identify the most plants/herbs.

DIRECTIONS:

1. Set a time limit; 10 to 15 minutes.
2. Find words horizontally, diagonally, and vertically. The words can also be found forward and backward.
3. Have participants draw a line or circle the word when they find it.

CHEROKEE

HERBAL WORD SEARCH

B C I L R A G O L D E N S E A L P L

E A X V I P T O O R D O O L B A E B

A F S P I K E N A R D E D U L Z N C

R G S Y A R R O W J L N R P A Q N X

B N N Y H I K M W O R D S H C T Y C

E O A A E Z Y B H U O V H S K W R V

R I K E B L D L I C H C I K C H O B

R L E F G K L O T J T L M U H S Y A

Y E R F M O C O E I O U Q L E O A W

T D O S W P C D W N E F G L R H L E

A N O V J A A R I R D R H C R O U O

B A T X T O N O L P O E S A Y C X T

C D L N K N N O L D R O E P T K I E

M Z I T E S E N O B C A T W Y C B L

B P Y A I O S F W U T V M Z K A C T

Y R R E B E G D I R T R A P D L F S

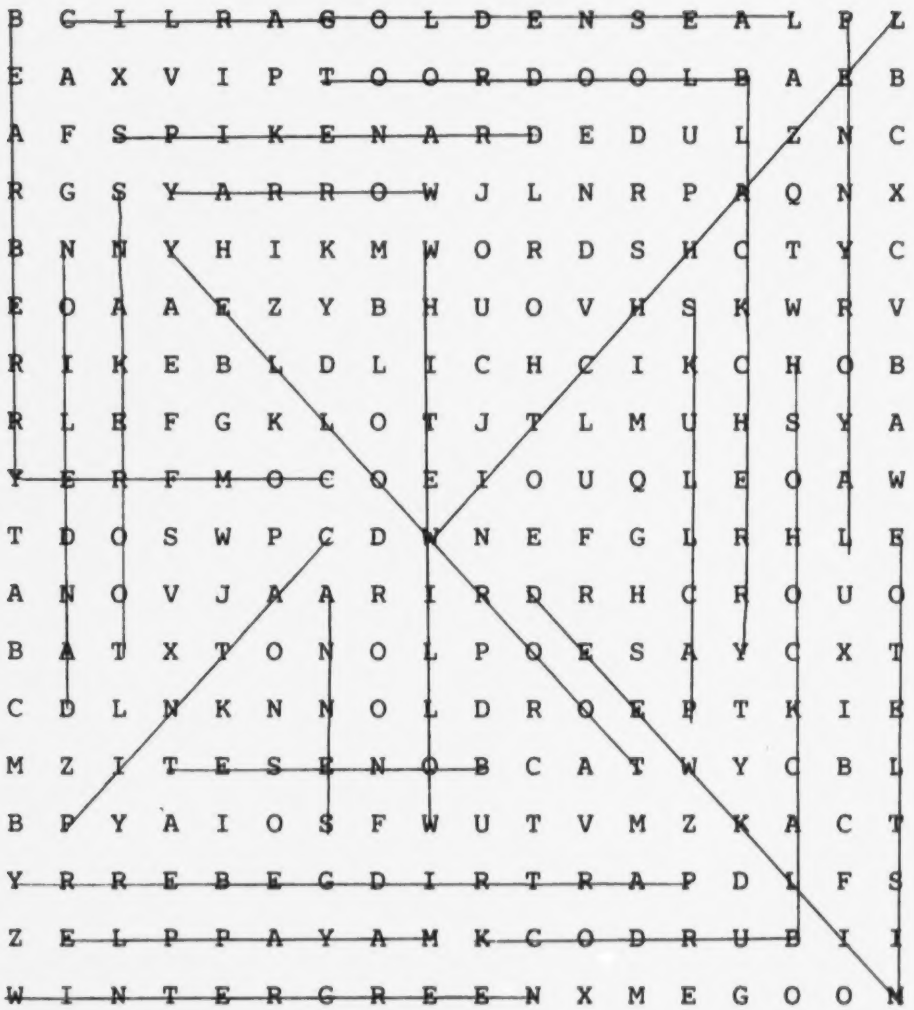
Z E L P P A Y A M K C O D R U B I I

W I N T E R G R E E N X M E G O O M

BEARBERRY
BLACK CHERRY
BLACK COHOSH
BLOODROOT
BONESET
BURDOCK
CATNIP
COMFREY
DANDELION
GARLIC
GOLDENSEAL
MAYAPPLE
MILKWEED
MISTLETOE
PARTRIDGEBERRY
PENNYROYAL
SENNA
SKULLCAP
SNAKEROOT
SPIKENARD
WHITE WILLOW
WINTERGREEN
WITCHHAZEL
YARROW
YELLOWROOT

CHEROKEE

HERBAL WORD SEARCH


B C I L R A G O L D E N S E A L P L
E A X V I P T O O R D O O L B A E B
A F S P I K E N A R D E D U L Z N C
R G S Y A R R O W J L N R P A Q N X
B N N Y H I K M W O R D S H C T Y C
E O A A E Z Y B H U O V H S K W R V
R I K E B L D L I C H C I K C H O B
R L E F G K L O T J T L M U H S Y A
Y E R F M O C O E I O U Q L E O A W
T D O S W P C D N N E F G L R H L E
A N O V J A A R I R D R H C R O U O
B A T X T O N O L P O E S A Y C X T
C D L N K N N O L D R O E P T K I E
M Z I T E S E N O B C A T W Y C B L
B P Y A I O S F W U T V M Z K A C T
Y R R E B E G D I R T R A P D L F S
Z E L P P A Y A M K C O D R U B I I
W I N T E R G R E E N X M E G O O N

BEARBERRY
BLACK CHERRY
BLACK COHOSH
BLOODROOT
BONESET
BURDOCK
CATNIP
COMFREY
DANDELION
GARLIC
GOLDENSEAL
MAYAPPLE
MILKWEED
MISTLETOE
PARTRIDGEBERRY
PENNYROYAL
SENNA
SKULLCAP
SNAKEROOT
SPIKENARD
WHITE WILLOW
WINTERGREEN
WITCHHAZEL
YARROW
YELLOWROOT

HERBAL PASSWORD

DESCRIPTION:

Two teams compete to see who can score the most points. Teammates give one member of their team clues to assist the member in coming up with the correct answer. The first team to guess the password by putting together the various clues gets the point.

DIRECTIONS:

1. Place two chairs in front of the class with the backs facing chalkboard or flip chart.
2. Divide the class into two equal teams, and have one person from each team sit in a chair, facing his/her team.
3. Alternate the team that starts each round since this makes an important difference in the game.
4. Be sure the two participants in the chairs face the group before the Instructor writes the first word on the board.
5. Start with 10 points and Team A. Have Team A give <u>one-word clues</u>. If Team A participant guesses correctly, Team A is awarded 10 points. If incorrect, round goes to Team B

for 9 points and so-forth until the word is guessed or until there are no more points.

6. After a word is guessed, have two new people sit in the chairs. Write a new word on the board and start again.
7. NOTE! Only one-word clues may be given, and no part of the word may be used in the clue.

HERBAL UNIT PASSWORDS:

1. Catnip
2. Skullcap
3. Partridgeberry
4. Bloodroot
5. Mistletoe
6. Spikenard
7. Boneset
8. Black Cherry
9. Mayapple
10. Dandelion
11. Pennyroyal
12. Black Cohosh
13. Garlic
14. Bearberry
15. Goldenseal
16. Senna
17. Snakeroot
18. St. Johns Wort
19. Yarrow
20. White Willow
21. Comfrey
22. Witch Hazel
23. Milkweed
24. Yellowroot
25. Burdock

BLACKBOARD HERBAL BASEBALL

DESCRIPTION:

Participants knowledge of herbal topics can be measured by their success in scoring runs in a game with a baseball format. They are given questions that differ in difficulty to determine a single, double, triple, or home run. The object of the game is to score the most runs by correctly answering herbal questions of different degrees of difficulty.

DIRECTIONS:

1. Divide the class into two equal teams; such as plants and herbs.
2. Draw a baseball diamond on the chalkboard or feltboard.
3. Questions are categorized as single, double, triple, and home run, ranging from simple to very difficult questions.
4. Start with the plant group. Ask them to choose a single, double, triple, or home run question. They confer for 10 seconds, and then they give their answer.
5. If correct and "x" is placed b first base for a single question, by second base for a double question, and by third base for a triple

question. If a home run question is answered correctly, the team gets a run.

6. There is only one out per side. This happens when a team misses a question or gives an incorrect answer. Erase any runners left on base.
7. To keep the game simple, move all players the same number of bases when a question is answered correctly.
8. If a category of questions runs out, then play with the remaining categories.
9. Place all incorrectly answered questions back in the pile for future use, and place the correctly answered questions aside.

SINGLES

1. The Indians used a process called what to decide which plants were valuable, useful, and worthwhile? ("Doctrine of Signature")
2. When was the bark usually gathered? (When it slipped easily away from the trunk)
3. What part of the bark was most often used? (Inner layer)
4. Leaves were often collected before what occurred? (Blooming)

5. Generally, seeds were harvested when? (Before seed pods opened)
6. What was the most common way of preparing herbs? (Infusion)
7. What was a common food added to improve taste if herbal remedy was too bitter? (Honey)
8. To reduce swelling, a paste was applied directly to the skin. This preparation was called what? (Poultice)
9. What was made by mixing and blending powdered herbs with types of animal fat or beeswax, and cooking this mixture for a couple of hours? (Salve)
10. Another name for the Native American Medicine Man was what? (Shaman)
11. What was the forced march of the Five Civilized Tribes called? (Trail of Tears)
12. What year did the Cherokees accept United States citizenship? (1906)
13. What was another name for Black Cohosh? (Squawroot)

14. Another common name for Black Cohosh besides Squawroot, since it emitted an unpleasant order that repelled insects, was what? (Bugwort)
15. Another name for Bloodroot was what? (Puccoon)
16. What did Bloodroot's genus name (Sanguinari) mean? (Bloody)
17. Medically, Bloodroot had what kind of action? (Laxative)
18. Another name for Boneset was what? (Common Thoroughwort)
19. Boneset was used as a herb for dengue, commonly called what? (Breakbone fever)
20. On each Burdock stem, what color of flowers were found that produced burrs? (Purplish)
21. This herb was included in the (and was also known as Catmint or Catswort, what was it? (Catnip)
22. Catnip, medically possesses a chemical, nepetalactone, which was a mild what? (Sedative)

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23. Other names for this herb were All-heal, Knitbone, or Bruisewort. What was it? (Comfrey)
24. When the Fomans boiled then pounded comfrey roots in water, the mixture was a sticky paste that hardened like what? (Plaster)
25. The roots of the dandelion were dried, roasted, then boiled in water. This tea was used as a substitute for what? (Coffee)
26. Name the world's second oldest medicine, after ephedra. (Garlic)
27. Goldenseal was also known as Golden root or what? (Indian Paint)
28. The Cherokees favored Goldenseal as what? (Insect repellant or insecticide)
29. This plant was also known as Indian Apple, or Devil's Apple. What was it? (Mayapple)
30. During the present time, gardeners used this plant as a natural insecticide. What was it? (Mayapple)
31. Mayapple plants were used in large doses by some people to do what? (Commit suicide)
32. Other common names for the milkweed are what? (Cottonweed or Wild Cotton)

33. This parasite plant was best known as the plant under which people kissed at Christmas. What was it? (Mistletoe)
34. Another name for Partridgeberry was what? (Squaw Vine)
35. This herb was hung in dried bunches to drive away mosquitoes. What was it? (Pennyroyal)
36. American Wild Senna was also called what? It was also used as a strong laxative or cathartic. (Cassia)
37. This plant was reported to be effective against rabies. What was it? (Skullcap)
38. People who drank milk from cattle that had eaten the root of this plant acquired the condition "milk sickness". Abraham Lincoln's mother, Nancy Hanks, was reported to have died from this disease. What was the root? (Snakeroot)
39. What plant was studied for its anti-inflammatory and antibacterial properties against AIDS? (St. Johns Wort)
40. The common name for Uva Ursi was what? (Bearberry)

DOUBLES

1. To make a syringe for injecting medicine into wounds or administering an enema, what was used? (Hollow bone of a small bird and a bladder of a small animal)
2. How many Native Americans were rounded up and moved west under military guard, and how many Cherokees survived this force march? (60,000 and 14,000)
3. What have been the two major places of residence of the present day Cherokees? (Cherokee Village, NC, Tahlequah, OK)
4. Soon after the forced march, the Cherokees rallied and established, and had operating how many public schools by what year? (18 by 1843)
5. What year did the Cherokees draft a new constitution and what year was it implemented? (1839 and 1840)
6. When were Black Cohosh roots (Squawroot, Bugwort) collected? (September or early fall <u>after</u> fruits had ripened)

7. There were several uses for the Bloodroot; however, the two most common were as a what and what? (Dye and insecticide)
8. What were the two types of Burdock? (Common--arctium minus and Great--arctium lappa)
9. What were two species of the perennial Snakeroot? (Senega and Black Sanicle)
10. From salicin, acetylsalicylic acid was created. What was this common product? (Aspirin)

TRIPLES

1. Name the president who ordered the Five Civilized Tribes to move to a Western territory, the state it is today, and the year the order was issued? (President Jackson, Oklahoma, 1838)
2. The Cherokees rebuilt their society and restored a three-part government. What were the three-parts? (Executive, Legislative, and Judicial Branch)
3. Pennyroyal was included in the mint family and was otherwise known as what? (Tickweed, Fleabone, and Squawmint)

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4. Bearberry Tea was used by the Cherokees as what? (Astringent, diuretic, urinary tract antiseptic)
5. What was the chemical found in White Willow when twigs were chewed or prepared tea was drunk? It relieved pain, reduced fever, and decreased inflammation. (Salicin, which decomposed into salicylic acid in the human body)

HOME RUN

1. Name and describe the different ways of preparing herbs for medical uses? (Infusion, decoction, fermentation, poultice, plaster, salve)
2. The Native American Medicine Man, also called the Shamam, was many things. Describe these. (Healer, sorcerer, seer, educator, priest)
3. Who were the five civilized tribes? (Cherokee, Chickasaw, Choctaw, Creek, Seminole)
4. Skullcap has been called several different names. What were these terms? (Mad-dog, Skullcap, Quaker Bonnet, Mad-dog Weed)

5. Spikenard was used as a remedy for several conditions. Describe four purposes. (Blood purifier, lung ailment, asthma, rheumatism, backaches, stimulant)

FIRST AID REVIEW SHEET

HEAT STROKE, CRAMPS, HEAT EXHAUSTION

A. Heat Stroke is characterized by extremely high body temperature and no sweating.

1. A life-threatening emergency.
2. Skin is hot, red, and dry.
3. Pulse is rapid and strong.
4. Victim may lose consciousness.
5. First Aid.
    a. Sponge bare skin with cool water or alcohol.
    b. Fan the victim to promote cooling.
    c. Do not give stimulants.
    d. Get medical help.

B. Heat cramps.

1. Heat cramps involve muscular pains and spasms.
    a. Muscles of the legs and abdomen are usually affected first.
2. First Aid
    a. Massage the area affected by "milking" the muscle towards the heart.

C. Heat exhaustion is characterized by fatigue, weakness, or collapse due to inadequate intake of water or loss of body minerals.

1. Usually normal body temperature.
2. Pale and clammy skin.
3. Profuse perspiration.
4. Sometimes nausea, dizziness, or vomiting.
5. First Aid
    a. Have victim lie down.
    b. Loosen clothing.
    c. Apply cool, wet clothes.
    d. Get medical help.

INSECT BITES

A. Ants, bees, wasps, hornets, and yellow jackets' stings may cause an acute allergic reaction.

1. May be excruciating pain, nausea, vomiting, abdominal pain, shock, convulsions or coma, and swelling around the face, hands, and limbs; may be difficulty in breathing; a rash may develop.
2. First Aid
    a. Check vital sign, airway open, breathing, circulation.

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b. Keep affected part down below level of victims heart.

c. Apply ice or cold clothes to affected area.

B. Bites or stings from mosquitoes, gnats, and chiggers often produce local pain and irritation, but are not likely to cause severe reactions.

1. First Aid

a. Cold application.

b. Soothing lotions.

c. Prevention includes several sprays.

C. Ticks can transmit diseases, namely Rocky Mountain Spotted Fever and Lymes disease. They adhere to the skin or scalp.

1. First Aid

a. Cover tick with heavy oil.

b. Carefully remove with tweezers.

c. Tape tick to tongue depressor for further examination.

d. Gently wash area.

e. Apply cold pack.

f. Check the body frequently for additional ticks.

D. Spiders usually are harmless; however, there are two exceptions: the Black Widow spider and the Brown Recluse (violin spider).

1. Symptoms include:

a. Local reaction.

b. Severe pain with profuse sweating.

c. Painful abdominal cramps.

d. Difficult breathing.

e. May have chills, fever, nausea, or vomiting.

f. Possible rash.

2. First Aid

a. Keep victim calm.

b. Keep bitten area below level of heart.

c. Care for shock.

d. Monitor breathing and circulation.

e. Get medical help.

SNAKEBITES

A. Include many nonpoisonous and only four poisonous varieties in the United States.

1. Nonpoisonous snakes have round pupils, and no fangs.

a. Reactions from snakebites are aggravated by acute fear and anxiety.

b. If bite is on arm or leg, keep bitten area below the level of the heart, care for shock, and medical attention.

2. Poisonous snakes include: Rattlesnakes, Copperheads, Water Moccasins, and Corals. They have fangs and a poison sac.

a. Rattlesnakes, Copperheads, and Water Moccasins belong to the pit vipers while the Coral is a member of the Cobra species.

b. Symptoms include extremely painful, rapid swelling, puncture wounds, general weakness, rapid pulse, nausea, shortness of breath, slurred speech, and shock.

3. First Aid

a. Don't apply ice or cold applications; can harm surrounding tissue.

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b. Don't give aspirin. It dilates the blood vessels, which will circulate venom in the body faster.

c. Keep victim calm.

d. If bite is on arm or leg, keep bitten area below the level of the heart.

e. Care for shock.

f. Monitor ABC's.

g. Get medical help immediately.

POISONOUS PLANTS

A. The skin reaction from contact with poisonous plants are allergic in nature and are characterized by headaches and fever, itching, redness, and a rash.

1. Three plants are:

a. Poison Ivy

b. Poison Oak

c. Poison Sumac

2. Old Saying, "Leaves of Three, leave them be."

a. Poison Ivy and Poison Oak have three leaves.

3. First Aid
    a. Remove from source of poison and contaminated clothing.
    b. Wash skin.
    c. If severe reaction, seek medical attention.
    d. Monitor ABC's.

SHOCK

A. Shock is the failure of the cardiovascular system to keep adequate blood circulating to the vital organs of the body.
    1. Symptons include erratic pulse rate, trembling, weakness in arms and legs, cool and moist skin, and pale or bluish lips, skin, and fingernails.
    2. First Aid
        a. Victim in lying-down position.
        b. If no injury, elevate feet 8 to 12 inches.
        c. Maintain body temperature.
        d. Get medical help as soon as possible.

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OTHER POINTS

A. Walking in Hot Weather:

1. Heat and humidity can present most serious problems.
2. Dehydration can be avoided by drinking fluids before, during, and after exercise.
3. Intensity and duration of field experience should be adjusted during hot, humid weather.
4. Wear light-colored, cotton clothing.

MATERIALS FOR

FIELD EXPERIENCES

SHOES

A. A proper fit, quality, and construction of shoes for walking and hiking are important.

   1. A cushioning sole between the outer and inner soles, an arch support, and a heel cup.
   2. Should be flexible, durable, and bend at the ball of the foot.
   3. Proper caution involving the walking area, and proper fitting footwear will cut down on sprains and strains.

CLOTHING

A. Socks are necessary for absorbing moisture, providing extra cushioning, and preventing blisters. Wearing two pairs sometimes prevents foot problems.

B. Hot weather clothing is <u>light-colored</u>, loose fitting, lightweight, and made of natural fabrics (cotton). Pants should be worn and tapered at the ankles to prevent ticks and insect bites. They should not have large or bulky inseams. This

could cause friction and irritation to the inside of the legs.

C. A hat that protects the eyes from sunlight, keeps out harmful rays of sun, and allows air to circulate between the top of the hat and the head is a must. The hat can help prevent heat emergencies.

EQUIPMENT

A. Sunglasses to prevent vision problems.

B. Walking stick to prevent falls and moving aside poisonous plants.

C. Notebook, pencil, and paper.

D. Water--freeze a quart milk-carton of water. As it thaws a person has cool, clean water to drink.

E. A plastic bag and string--many uses.

1. Rain guard
2. Collecting plants
3. Sit on it

FIRST AID MATERIALS

A. Soap, bandages, gauze pads, and tape.

SNACKS

A. Non-perishable foods, such as:

1. Fruit (apples, orange, banana)
2. Cracker

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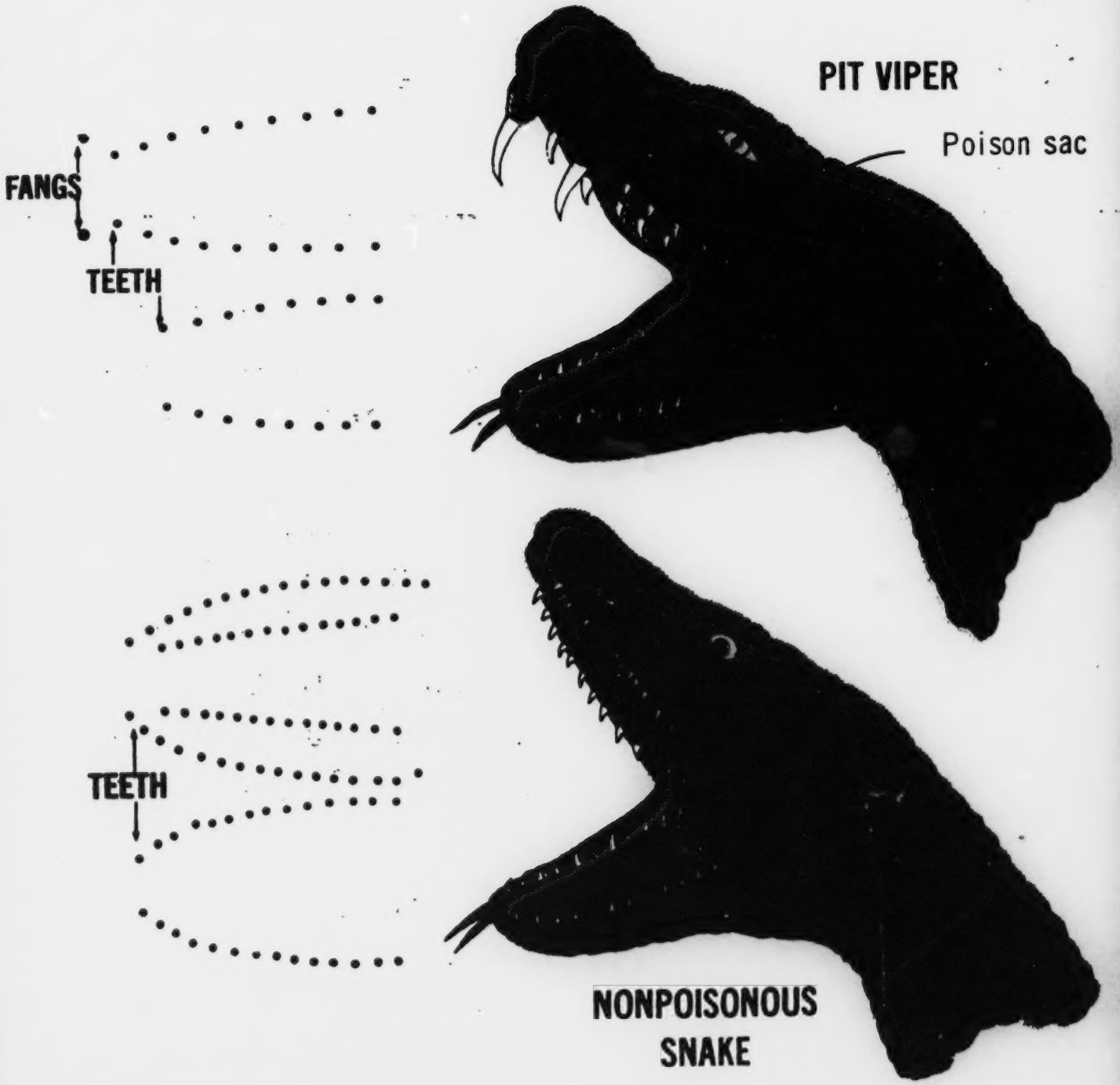
PIT VIPER
Poison sac
FANGS
TEETH
TEETH
NONPOISONOUS
SNAKE

COMMON POISON IVY
(RHUS RADICANS)

- Grows as a small plant, a vine, and a shrub.
- Grows everywhere in the United States except California and parts of adjacent states. Eastern oak leaf poison ivy is one of its varieties.
- Leaves always consist of three glossy leaflets.
- Also known as three-leaf ivy, poison creeper, climbing sumac, poison oak, markweed, picry, and mercury.

WESTERN POISON OAK
(RHUS DIVERSILOBA)

- Grows in shrub and sometimes vine form.
- Grows in California and parts of adjacent states.
- Sometimes called poison ivy, or yeara.
- Leaves always consist of three leaflets.

POISON SUMAC
(RHUS VERNIX)

- Grows as a woody shrub or small tree from 5 to 25 feet tall.
- Grows in most of eastern third of United States.
- Also known as swamp sumac, poison elder, poison ash, poison dogwood, and thunderwood.

B I B L I O G R A P H Y

and

A R T I C L E S

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A P P E N D I C E

A and B

APPENDIX A

Research Source

Name of Author _____

Title of Article/Book _____

Date of Publication _____

This is checklist of twenty-five identified plants and herbs found in the four state parks in southwestern Indiana and used by the Cherokee Nation. ( ) will identify the use of the identified plant.

1. Black Cohosh or Squawroot
2. Bloodroot or Pucoon
3. Boneset or Thoroughwort
4. Burdock or Common Great
5. Catnip
6. Comfrey or All Heal
7. Dandelion
8. Garlic
9. Goldenseal
10. Mayapple
11. Milkweed or Common
12. Mistletoe
13. Partridgeberry or Squaw Vine
14. Pennyroyal
15. Senna or American Wild
16. Skullcap
17. Snakeroot
18. Spikenard
19. St. Johns Wort
20. Uva Ursi or Bearberry
21. White Willow
22. Wild Black Berry
23. Witch Hazel
24. Yarrow
25. Yellow Root

Comments: _____

APPENDIX B

CHEROKEE NATION SOURCE

Name of Interviewee_____

Tribal Position _____

Date of Interview _____

This is checklist of twenty-five identified plants and herbs found in the four state parks in southwestern Indiana and used by the Cherokee Nation. ( ) will identify the use of the identified plant.

1. Black Cohosh or Squawroot
2. Bloodroot or Pucoon
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9. Goldenseal
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13. Partridgeberry or Squaw Vine
14. Pennyroyal
15. Senna American Wild
16. Skullcap
17. Snakeroot
18. Spikenard
19. St. Johns Wort
20. Uva Ursi or Bearberry
21. White Willow
22. Wild Black Cherry
23. Witch Hazel
24. Yarrow
25. Yellow Root

Comments:_____

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C H A R T S

I - X

CHART I

PLANT IDENTIFICATION

PLANT	IDENTIFICATION
Black Cohosh or Squawroot	Leafy perennial, large, three-divided toothed leaves. Flowers white, long-spiked with an unpleasant odor. Clustered flowers, three feet in length.
Bloodroot or Puccoon	Twelve-inch perennial; waxy, white flowers, long stems and roots with blood red juice.
Boneset or Thoroughwort	Hardy perennial, clumps three feet, leaves opposite one another and united at base. Dull, white flat-topped flowers.
Common or Great Burdock	White, spongy roots, large, hairy, egg-shaped leaves. Stem had bristled, purplish flowers that produced burrs.
Catnip	Aromatic perennial, two or three feet tall, two-lipped white clustered flowers. Leaves heart-shaped, scalloped, toothed and fuzzy.
Comfrey	Hardy perennial; large, hairy, lance-shaped leaves, flowers white, blue, purple; were bell-shaped. Hollow woody stems.
Dandelion	Hardy perennial; yellow, several petaled flowers. Elongated hollow stems with milky juice, produced fluffy seeds. Long jagged-cut, green leaves.
Garlic	Common perennial, long pointed leaves and six-pointed lavender flowers with stringed tails.

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Goldenseal	Hairy perennial, six to twelve inches. Leaves veined, lobed on forked branches. Flowers single, greenish, white, orange-red berry on top of stem.
Mayapple	Common perennial, twelve to eighteen inches tall. Unpleasant odor. Single white flower under umbrella-like leaves. Two-inch, edible, yellow fruit, creeping roots.
Common Milkweed	Downy perennial one to four feet, four to ten inch, paired, long leaves. Single clustered flower with pointing petals. Seedpods were rough-surfaced.
Mistletoe	Parasite perennial found on oak trees. Thick-branched, woody evergreen, leathery, three-inch oblong leaves. Had white berries with single seed. Difficult to collect.
Partridgeberry or Squaw Vine	Evergreen perennial from six to fourteen inches. Creeping, trailing, vining with shiny, dark green, rounded or oval one-half inch long leaves with whitish veins. White or pink, funnel-shaped, paired flowers with hairy lobes. Red, edible berries.
Pennyroyal	An annual with strong mint-like odor. Small, opposite green leaves; short square stems with pale blue flowers.
Senna, American Wild	Hardy perennial with five petal loose clustered, yellow flowers. Stems slender and fuzzy. Leaves pointed and seeds in leathery pods. Small three-foot shrub.

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Skullcap	Two-foot scrubby perennial. Leaves long-stalked, serrated, toothed, opposite one another, pointed tips and oval or lanced shaped. Two-lipped flowers were violet or blue.
Snakeroot	Smooth stems with small, pea-like, white lance-shaped leaves, alternated with lance-shaped leaves. Greenish-white flowers were mingled with stiff, pointed bracts. Grew six to eighteen inches.
Spikenard	A perennial, three to five feet tall that had long, smooth, dark green stems. Small, whitish flowers formed small clusters on tiny branches that extended from the stem.
St. Johns Wort	Woody, spreading perennial. Yellow, five-petaled flowers with black dots on margins. Leaves oblong with translucent glands. Leaves, when pinched, produced red oil and emitted aroma. Grew one to three feet.
Uva Ursi or Common Bearberry	Hardy evergreen that reached few inches in height. Leaves turned bronze in winter, were leathery and paddle-shaped. Seeds, waxy white tinged with red. White flowers. Smooth, red, edible fruit.
White Willow	Rough, grayish bark tree that reached sixty feet. Leaves lance-shaped, finely toothed with silky hairs. Long catkins appeared with leaves.
Wild Black Cherry	Wooded, ninety-foot tree that had black bark but reddish beneath with pleasant aroma. Leaves oval or lance-shaped, with brown hairs. Small clustered, elongated, white flowers during early spring. In

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	fall had small black fruit the size of peas.
Witch Hazel	Deciduous shrub that grew eight to fifteen feet tall. Lost leaves in fall. Stems twisted and forked into flexible hairy branches. Bright yellow, slender petals, spider-like appearance flowers late fall. After leaves dropped, ripe fruit from previous year followed. Edible seeds in middle of flower. Leaves toothed, scalloped margins and uneven wedge-shaped bases.
Yarrow	Hardy perennial that grew to three feet with fern-like, leathery leaves. Found along near base of plant and shortened higher on stem. Flowers found in dense clusters were tiny white, pink, or purple. The leaves divided into thousands of tiny leaflets, hence nickname, Thousand Weed.
Yellow Root	Low growing hardy shrub. Thick, deep-yellow roots. Long stalks with five cleft toothed leaflets. Flowers light brown-purple with puffs of stamens. Red raspberry-like fruits.

CHART II

ENVIRONMENT AND AREA WHERE LOCATED

PLANT	LOCATION
Black Cohosh or Squawroot	Rich, fertile woods near Ohio River Valley and Harmonie State Park.
Bloodroot or Puccoon	Large colonies, wooded slopes, and open woodlands, Pike County State Forest and O'Leary Woods.
Boneset or Thoroughwort	Clumps in wet but sunlit areas. Pike County State Forest.
Burdock, Common or Great	Moist abandoned fields and waste areas exposed to sun. Found throughout southwestern Indiana.
Catnip	Well-drained, humus soil in partial shade or sunlight at Lincoln State Park.
Comfrey	Clay or sandy, humus soil and in open woods in Harrison-Crawford State Forest.
Dandelion	Found throughout all southwestern Indiana in fields, lawns, and waste areas.
Garlic	Grew in all types of soil, open fields in sunlight, throughout Southwestern Indiana. Very common plant.
Goldenseal	Grew in clusters in natural drainage areas where an abundance of leaf mold or decaying vegetable matter was found. Goldenseal grew in all State Parks and Forests.
Mayapple	Found growing in clusters in rich, humus, moist, hilly areas, woods, and fields. A common plant found in all areas of southwestern Indiana.

Milkweed, Common	Found in moist woodlands in all southwestern State Parks and Forest.
Mistletoe	A parasite, it was found in oak trees in Harmonie State Park.
Partridgeberry, Squaw Vine	Found near decayed stumps, soil rich in humus and moisture in Harrison-Crawford State Forest.
Pennyroyal	Grew in dry, sandy soil on gravelly, loose slopes. Found along the Wabash River in Harmonie State Park.
Senna, American Wild	Found in rich, moist soil, and wooded thickets and was noted in Harmonie State Park.
Skullcap	Grew in rich moist soil and in wooded thickets. Found in Harmonie State Park.
Snakeroot	It grew in rocky, partially shaded, open hardwood forests where there was leaf mold. It was found in many areas of southwestern Indiana.
Spikenard	Found growing in rich woods around southwestern Indiana.
St. Johns Wort	Grew in fields with dry, light soils and was found in Pike County State Forest.
Uva Ursi, Common Bearberry	Found in Pike County State Forest growing in dry, rocky, sandy soil.
White Willow	Commonly found along stream edges in Pike County State Forest and along the Wabash River in Harmonie State Park.
Wild Black Cherry	The tree grew in fertile soil under full sunlight in many areas

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	throughout southwestern Indiana.
Witch Hazel	It grew in low, damp woods and moist rich areas with partial shade. It was found in Pike County State Forest and Harrison-Crawford State Forest.
Yarrow	Found throughout southwestern Indiana in abandoned fields, along roadsides, and in waste areas.
Yellow Root	Found growing in colonies on shady stream banks and moist woods or thickets in Lincoln State Park.

CHART III

HERBAL HISTORY

PLANT	HISTORY
Black Cohosh or Squawroot	Common name Bugwort. Settlers used it for fever, rashes, yellow-fever and menstrual complaints. In US Pharmacopoeia from 1820 to 1936.
Bloodroot or Puccoon	Genus name, Sanquinaria, meant "bloody". Listed in US Pharmacopoeia from 1820 to 1926. Hoosiers used it for stomach ailments or colic. Very toxic.
Boneset or Thoroughwort	Doctrine of Signatures, used often for colds, flu, headaches, fever. Listed in US Pharmacopoeia from 1829 to 1916.
Burdock, Common or Great	European treatment for rheumatism and leprosy. Settlers used it for urinary infections, kidney problems, skin infections, and arthritis. Also eaten as food.
Catnip	Used as tranquilizer, sedative, digestive aid, and pain killer throughout history. Settlers used it for colds, fevers, headaches, menstruation, insomnia, and chicken pox. Listed in US Pharmacopoeia from 1916 to 1950. Hoosiers: poultice for burns, tea for colds and fussy babies, sedative for adults.
Comfrey	Greeks used it to heal wounds, Romans made sticky paste, when hardened like plaster placed around broken bones. Settlers: tea for respiratory and gastrointestinal ailments. Hoosiers: colds, flu, tonic, placed on wounds.

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Dandelion	Introduced from Europe. Native American used it for food and medicine. Settlers roasted roots for a beverage substitute for coffee. Used it for liver, gall bladder, and liver problems. In spring, used as blood thinner, purifier, and tonic. Listed in US Pharmacopoeia from 1831 to 1926.
Garlic	World's second oldest medicine after ephedra. Greeks used for heart problems, headaches, bites, worms, and tumors. Romans as a stimulant for strength, endurance, and stamina. Egyptians used it for solemn oaths. Settlers: colds, bronchitis, coughs, blood pressure. In World War I, salve used to treat infected wounds. Hoosiers used it for coughs, high blood pressure, and as tonic.
Goldenseal	Settlers used it as an eyewash, for wounds, sore throats, digestive problems and recovery from childbirth. Included in US Pharmacopoeia from 1831 to 1842. Hoosiers used it for cancer, skin problems, sore mouths, and epileptic seizures.
Mayapple	Common name, Indian Apple. Settlers used it for many ailments. Hoosiers used it for abortion, constipation, and heat exhaustion. The fruit was eaten for energy and food.
Milkweed, Common	Settlers used it for asthma, rheumatism, cancer, and as food. Hoosiers used it for bleeding, treatment of burns and scalds, for poison ivy, warts, ringworm, and skin blemishes.

Mistletoe	Used in Middle Ages for disorders of spleen, epilepsy, and apoplexy. Settlers: high blood pressure and cancer.
Partridgeberry or Squaw Vine	Settler uses: tonic, astringent, diuretic, swellings, hives, sore nipples, and menstrual problems.
Pennyroyal	Greeks hung it in sickrooms for fragrance. Settler uses: abortion, sweating, colds, dress wounds, repel insects, flu, cough, and congestion. Hoosiers also used it for colic and headaches. Dried bunches drove away mosquitoes.
Senna, American Wild	Used widely from Middle East to India. Hoosiers used it as a laxative and body purge. Listed in US Pharmacopoeia from 1820 to 1882.
Skullcap	Chinese used it as a tranquilizer or sedative, for convulsions and a digestive aid. Settlers used it for malaria fever and nerve tonic.
Snakeroot	Settlers used it for pain, kidney ailments, rheumatism, fever. Hoosiers used it for snakebites and kidney problems. May be extremely poisonous for humans and animals.
Spikenard	Settler uses: blood purifier, lung ailments, asthma, rheumatism, backaches. Hoosiers used it for sore backs, tuberculosis, as a poultice on wounds, and to treat blood poisoning.
St. Johns Wort	Came from Europe. According to legend it releases blood-red oil on the date of John the Baptist's beheading. Greeks used it for burns, diuretic, menstrual promotor, for fever, to drive away evil spirits, and to ensure healthy

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	crops. Settlers used it on wounds. Hoosiers used it for colds and bronchitis.
Uva Ursi, Common Bearberry	Romans used it to treat wounds. Chinese for kidney and urinary problems. Was listed with Doctrine of Signatures and US Pharmacopoeia from 1820 to 1936. Settlers: diarrhea, dipentery, kidney infections. Hoosiers used as diuretic.
White Willow	Chinese used it as pain remedy; Settlers for pain, fevers, inflammation. Hoosiers used it to treat rheumatism. It was listed in US Pharmacopoeia from 1882 to 1926.
Wild Black Cherry	Settler uses: poor circulation, lack of appetite, sedative, treatment of coughs, fevers, colds, sore throats. Hoosiers used it to thin blood, as tonic, cure gout, for diarrhea, dipentery, jaundice, hepatitis, and to relieve discomforts of measles. Listed in US Pharmacopoeia from 1920 to present.
Witch Hazel	Settler uses: inflammations, swellings, bruises, cuts and as divining rod in search of water. Hoosiers used it for arthritis, rheumatism, nosebleeds, skin problems. It was listed in US Pharmacopoeia from 1862 to 1916.
Yarrow	Greeks used it on wounds. Used also during Civil War to promote healing. Settlers used it for bladder disorders, ulcers, kidney problems. Hoosiers treated cuts, abrasions, bruises, toothaches, gum problems and colds with it. It was listed in US Pharmacopoeia from 1863 to 1882.

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Yellow Root

Settlers used it for stomach problems. Hoosiers used it to thin blood, to improve appetite and digestion, to treat sore mouths and canker sores. Listed in US Pharmacopoeia from 1820 to 1882.

CHART VI

MONTHS WHEN GATHERED OR HARVESTED

PLANT	MONTHS
Black Cohosh or Squawroot	August, September
Blood Root or Pucoon	Blooms: April, May Roots: September, October, November
Boneset or Thoroughwort	August, September
Burdock	June, July, August, September, October
Catnip	July, August, September
Comfrey	May, June
Dandelion	Leaves & stems: May, June, July Roots: September, October
Garlic	June, July
Goldenseal	August, September, October, November
Mayapple	April, May, June
Milkweed	April, May (pre-blooming stage)
Mistletoe	January, November, December
Partridgeberry	May, June
Pennyroyal	June, July
Senna	June, July, August
Skullcap	April, May, June, July (sometimes in full bloom)
Snakeroot	March, April, May, September, October

Spikenard	June, July, August
St. Johns Wort	June, July, August
Uva Ursi or Bearberry	August, September, October
White Willow	March, April, May
Wild Black Cherry	August, September, October
Witch Hazel	June, July, August
Yarrow	May, June, July, August, September, October
Yellow Root	June, July, August

CHART IV

CHEROKEE USES

PLANT	PART USED	MEDICAL EFFECT
Black Cohosh or Squawroot	roots	Tea used as astringent, diuretic, and antiseptic. To stop bleeding and diarrhea.
Bloodroot or Puccoon	roots	Made dye with roots and tannin from Oak bark. Also used as an insecticide.
Boneset or Throughcoast	roots leaves	Leaves wrapped around broken bones. Poulticed onto tumors. Tea to relieve pain, fever, colds, flu, and constipation.
Burdock or Common Great	leaves seeds	Leaves to draw poison from boils. Poulticed seeds for bruises, hives, eczema, and skin problems.
Catnip	leaves	Tea to aid digestion, to cure colic, to relieve menstrual cramps, and to calm nerves. Chewed leaves for toothaches.
Comfrey or All Heal	roots leaves	Root tea for cancer, genital infections, and milky urine. Dried leaves smoked. Dried root salve used for burns, cuts, wounds, and to promote healing.
Dandelion	roots leaves	Root tea for heartburn, as body tonic, and as a beverage. Leaves eaten as food.
Garlic	bulbs shoots roots	Crushed bulbs eaten to lower blood pressure, and wound swelling, to inhibit cancer growth, and to flavor foods.
Goldenseal	roots	Used with bear fat as insect repellent. Tea for sore mouths and throats. Concoction for skin disorders.

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Mayapple	roots	Tea as cathartic, laxative, purgative. Salve treatment of warts.
Milkweed	roots	Tea used as laxative, diuretic, for sterility, and inducement of sweating. Salve was applied to warts, moles, and ringworm.
Mistletoe	leaves berries twigs	Tea for abortions, to stop bleeding, as a contraceptive, epilepsy, headaches, lung ailments.
Partridge-berry or Squaw Vine	leaves berries	Tea for childbirth, placenta delivery, hemorrhage, and painful menstruation.
Pennyroyal	leaves	Crushed fresh leaves for headaches and snakebite. Tea for menstruation cramps, pain, diarrhea, and hemorrhaging.
Senna	leaves roots seeds	Decoction for sore throats, fever, and cathartic purposes. Roots used for sores and wounds.
Skullcap or Mad-dog	leaves stems	Tea mixed with honey to promote menstruation and for rabies victims.
Snakeroot	roots	Tea for high fevers, colds, coughs, croup, bronchitis, and pneumonia. As a poultice for snakebite, swellings, and pain of rheumatism.
St. Johns Wort	leaves	Salve for wounds, sores, cuts, bruises, and skin problems. Tea for bladder infections, dysentery, diarrhea, bronchitis, lung infections. Concoction for tuberculosis.
Spikenard	roots	Tea for backaches, menstrual difficulties and for coughs. Pulverized root salve for boils, infection, swellings, and wounds. Root juice for earaches.

Uva-Ursi or Bearberry	leaves	Tea as astringent, diuretic, and antiseptic. Also used to stop bleeding and diarrhea.
White Willow	twigs bark	Chewed and prepared tea for pain, chills, and fever.
Wild Black Cherry	Inner bark leaves	Tea from bark for labor and childbirth. Concoction of leaves and bark for frostbite. Leaf tea for coughs, diarrhea, and hemorrhoids.
Witch Hazel	leaves bark twigs seeds	Tea concoction for muscles and lameness. Tea for colds, fever, sore throats, and menstrual cramps. Salve for cuts, bruises, bites, scalds, burns, and inflammations. Steamed twigs for muscular aches, strained backs, and painful joints. Seeds eaten as food.
Yarrow	leaves	Salve applied to wounds and to stop bleeding. Fresh leaves used as poultice. Tea drunk for sweating, reducing fevers, and relief of colds and the flu.
Yellow Root	roots	Tea used as blood tonic, for colds, jaundice, cramps, sore throats, and constipation. Sometimes roots were chewed instead of drinking tea.

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CHART V

DAY FAMILY REMEDIES

Plant	Remedies
Black Cohosh or Squawroot	Family uses: Warding off "cricks" in back, relieving pain of rheumatism, and as a fall tonic.
Bloodroot or Pucoon	Family prepared: Crushed Bloodroot with lard and placed this poultice on "summer" or touch sores. (Infatigo)
Boneset or Common Thoroughwort	Day uses included: As a laxative by drinking tea or for constipation by chewing fresh leaves. It was used only in extreme cases.
Common or Great Burdock	Family used: Fresh, crushed leaves on sores, cuts, and bruises. The fresh leaves were mixed with other salad greens. Only young and tender leaves were picked; aged and mature leaves tasted bitter and sour.
Catnip	Days prepared: Catnip infusion or tea before retiring to calm nerves and to promote sleep.
Comfrey	Family used: Comfrey and Sassafras tea as spring tonic. Comfrey and baking soda for "settling an upset stomach."
Dandelion	Days used: For wines, for salad greens, and for frying stems and blossoms.
Garlic	Family used: To flavor and cure meats, for flavoring of vegetables, and medication. The dried bulbs were placed in an old woolen sock

	and hung around a person's neck to relieve chest colds or lung congestion.
Goldenseal	Family prepared: Goldenseal, Wintergreen, and turpentine poultice for "stifled" or "bowed" tendons.
Mayapple	Days used: As insecticide for beetles, grub worms, and other insects; and ripe Mayapples for jellies.
Milkweed Common	Family used: Fresh Milkweed sap and lard salve was applied to burns, blemishes, and skin irritations.
Mistletoe	Day Family pulverized the plant, made an infusion which they bathed body with to reduce high fevers. Berries, along with holly decorated the Christmas tree.
Partridgeberry or Squaw Vine	Day's drank Partridgeberry tea for painful menstruation or cramps.
Pennyroyal	Family used: To freshen the air, and an inhaler to relieve headaches.
American Wild Senna	Days used: For mild cases of constipation; for extreme cases they used Boneset. Senna tea was laced with brown sugar to improve the taste.
Skullcap	Day Family prepared: A salve made by mixing Skullcap and lard. This was rubbed on horses harness sores to promote healing and to prevent scabs and white hairs.
Snakeroot	Day Family used Snakeroot salve on swollen joints of farm animals.

Spikenard	Day's prepared a hoof preparation that was placed on horse's hooves for "thrush" or hoof rot.
St. Johns Wort	The Day family used St. Johns Wort salve for cuts, wounds, and for preventing scar tissue.
Uva Ursi or Bearberry	Grandfather Day used a Bearberry poultice on animals that had sores, scrapes, and insect bites. Fresh leaves were used to stop bleeding.
White Willow	Day Family uses: A tea to reduce fevers, and catkins mixed with other wild flowers as winter decorations.
Wild Black Cherry	Family used Wild Cherries as: cough syrup (honey, lemon), Wild Cherry Wine, smoked chips for smoking meats, and the berries were eaten as fresh fruit, or made into jams or jellies.
Witch Hazel	The Day Family mixed boiled Witch Hazel leaves with alcohol for sore muscles or strained backs. The stick was also used to find water.
Yarrow	The Day Family used yarrow salve for small wounds, scratches, and sores. Sometimes fresh leaves were used to stop bleeding.
Yellow Root	The Day Family dyed Easter eggs made from yellow root dye; also, a gargle or mouthwash was prepared with yellow root for sore throats or mouth sores.

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CHART VII

PREPARATION AND STORAGE OF CHEROKEE HERBAL REMEDIES

Plant	Preparation and Storage
Black Cohosh or Squawroot	Roots collected after fruits ripened. They were cut lengthwise, dried, and stored in dry place.
Bloodroot or Puccoon	After leaves withered, roots were dug and dried, then stored in dry place.
Boneset or Thoroughwort	Leaves were collected and stripped from stems when plant was in full bloom. Dried in shade and stored.
Burdock or Common Great	Leaves and seeds dried in sunlight or partial shade, then stored in dry place.
Catnip	Leaves gathered when plant in full bloom, dried then in the shade to preserve the green color. Stored in dry, cool place.
Comfrey or All Heal	Leaves harvested when flowers had begun to bud. Roots cut into slices and dried then crushed and powdered.
Dandelion	Roots dried whole or cut into small pieces, three to six inches long. Sometimes roots were roasted then ground or powdered.
Garlic	Bulbs harvested when tops yellowed. Stored loosely dried bunches hung in cool, dark area. Bulbs crushed to release medicinal properties.
Goldenseal	Roots dug pre-blooming stage, dried in partial shade until brittle, then pounded into a powder.
Mayapple	Pulverized and crushed the dried

	roots. Made root tea and mixed crushed roots with animal fats for a salve. Ate ripe fruit.
Milkweed	Roots dug pre-blooming stage, dried in partial sunlight, pounded into powder, and stored in dry place. Tea made from fresh plant.
Mistletoe	Fresh berries mashed to make a paste. Leaves and twigs dried in sunlight and stored.
Partridgeberry or Squaw Vine	Leaves collected when plant in full bloom, dried in partial sunlight. Berries eaten fresh. fresh leaf tea drunk.
Pennyroyal	Leaves dried in shade, stored in cool dry place. Fresh crushed leaves inhaled.
Senna American Wild	Leaves harvested when flowers bloomed. After drying, leaves were powdered and crushed.
Skullcap or Maddog	Young stems and leaves were dried in full shade and then stored in dry place.
Snakeroot	Gathered in spring and fall, roots were cut, dried in partial sunshine, and stored in a dry place.
St. Johns Wort	Leaves were air dried and stored in dry place. A salve, tea, and concoction made from dried leaves.
Spikenard	Fresh roots pulverized for juice, made into a salve or poultice. Others dried in sun, powdered, and stored in a dry place.
Uva Ursi or Bearberry	Leaves gathered before frost, dried, spread over a large area. Often difficult to dry. A slow process.

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White Willow	Bark gathered in spring when sap had begun to flow, bark easily removed then.
Wild Black Cherry	Bark collected and peeled in fall; highest medicinal value then. Berries eaten fresh or dried and pulverized for future use.
Witch Hazel	Leaves, twigs, bark collected and stored throughout the summer months.
Yarrrow	Leaves were harvested when plants were in bloom, then used fresh or dried in partial shade
Yellow Root	Roots sliced, dried in shade, and stored in dry cool place.

Chart VIII

MEDICAL TERMS AND HEALING PLANTS

MEDICAL TERMS	HEALING PLANTS
ABORTION:	Mistletoe
ANTISEPTIC:	Black Cohosh (Squawroot) Uva Ursi (Bearberry)
ARTHRITIS:	Witch Hazel
ASTRINGENT:	Black Cohosh (Squawroot) Uva Ursi (Bearberry)
BACKACHE:	Spikenard, Witch Hazel
BLEEDING:	Black Cohosh, Mistletoe, Pennyroyal, Uva Ursi (Bearberry), Yarrow
BOILS:	Burdock, Spikenard
BRONCHITIS:	Snakeroot, St. Johns Wort
BRUISES:	Burdock, St. Johns Wort, Witch Hazel
BURNS:	Comfrey, Witch Hazel
CANCER:	Comfrey, Garlic
CATHARTIC:	American Wild Senna, Mayapple
CHILLS:	White Willow
CHILDBIRTH:	Partridgeberry, Wild Black Cherry
COLDS:	Boneset, Snakeroot, Witch Hazel, Yarrow, Yellowroot
COLIC:	Catnip
CONGESTION:	Mistletoe

CONSTIPATION:	Boneset, Mayapple, Milkweed, Yellowroot
CONTRACEPTIVE:	Mistletoe, Mayapple
COUGHS:	Snakeroot, Spikenard, Wild Black Cherry
CROUP:	Snakeroot
DIARRHEA:	Black Cohosh, Pennyroyal, St. Johns Wort, Uva Ursi (Bearberry), Wild Black Cherry
DIGESTION:	Catnip
DIURETIC:	Black Cohosh, Milkweed, Uva Ursi (Bearberry)
EARACHES:	Spikenard
ECZEMA:	Burdock
EPILEPSY:	Mistletoe
FEVER:	American Wild Senna, Boneset, Snakeroot, Witch Hazel, White willow, Yarrow
FLU:	Boneset, Catnip, Yarrow
FROSTBITE:	Wild Black Cherry
GENITAL INFECTIONS:	Comfrey
HEADACHE:	Mistletoe, Pennyroyal
HEALING:	Comfrey
HEARTBURN:	Dandelion
HEART DISEASE:	Garlic
HEMORRHOIDS:	Wild Black Cherry
HIGH BLOOD PRESSURE:	Garlic

HIGH CHOLESTEROL:	Garlic
HIVES:	Burdock
INSECTICIDE:	Bloodroot (Puccoon), Goldenseal
INFECTIONS:	Spikenard, Witch Hazel
JAUNDICE:	Yellowroot
LUNG AILMENTS:	Mistletoe, St. Johns Wort
MENSTRUAL PROBLEMS:	Catnip, Partridgeberry, Pennyroyal, Skullcap, Spikenard, Witch Hazel, Yellowroot
MUSCLE SORENESS/LAMENESS:	Witch Hazel
MINOR CUTS:	Comfrey, St. Johns Wort, Witch Hazel
MOLES:	Milkweed
PAIN:	Boneset, Pennyroyal, White Willow
PNEUMONIA:	Snakeroot
PURGATIVE:	Mayapple
RABIES:	Skullcap
RINGWORM:	Milkweed
SNAKEBITE:	Pennyroyal, Snakeroot
SKIN PROBLEMS:	Burdock, Goldenseal, St. Johns Wort
SORES:	Goldenseal, St. Johns Wort
SORE THROATS:	American Wild Senna, Witch Hazel, Yellowroot
STRESS:	Catnip
SWEAT INDUCER:	Milkweed, Yarrow

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TONIC:	Dandelion, Yellowroot
TOOTHACHE:	Catnip
TUBERCULOSIS:	St. Johns Wort
TUMORS:	Boneset
URINARY TRACT:	Comfrey, St. Johns Wort
WARTS:	Mayapple, Milkweed
WOUNDS:	American Wild Senna, Comfrey, St. Johns Wort, Spikenard, Witch Hazel
WOUND SWELLING:	Garlic, Snakeroot, Spikenard

Chart IX

BOTANICAL NAMES ALPHABETIZED

BOTANICAL NAME	COMMON NAME
ACHILLEA MILLEFOLIUM:	Yarrow
ALLIUM SATIVUM:	Garlic
ARALIA RACEMOSA:	Spikenard
ARCTOSTAPHYLOS UVA-URSI:	Uva Ursi or Common Bearberry
ASCLEPIAS SYRIACA:	Milkweed
CASSIA HERBECARPA:	American Wild Senna
CIMICIFUGA RACEMOSA:	Black Cohosh or Squawroot
COMMON-ARCTIUM MINUS:	Common Burdock
EUPATORIUM PERFOLIATUM:	Boneset or Common Thoroughwort
GREAT-ARCTIUM LAPPA:	Great Burdock
HAMAMELIS VIRGINIANA:	Witch Hazel
HEDEOMA PULEGIOIDES:	Pennyroyal
HYDRASTIC CANADENSIS:	Goldenseal
HYPERICUM PERFORATUM:	St. Johns Wort
MITCHELLA REPENS:	Partridgeberry or Squaw Vine
NEPETA CATARIA:	Catnip
PHORADENDRON SEROTINUM:	Mistletoe
PODOPHYLLUM PELTATUM:	Mayapple
POLYGALA SENEGA:	Snakeroot
PRUNUS SEROTINA:	Wild Black Cherry
SALIX ALBA:	White Willow

SANGUINARIA CANADENSIS:	Bloodroot or Puccoon
SCUTELLARIA LATERIFLORA:	Skullcap
SYMPHYTUM OFFICINALE:	Comfrey
TARAXACUM OFFICINALE:	Dandelion
ZANTHORHIZA:	Yellow Root

Chart X

COMMON NAMES ALPHABETIZED

COMMON NAME	BOTANICAL NAME
BLACK COHOSH OR SQUAWROOT:	Cimicifuga racemosa
BLOODROOT OR PUCCOON:	Sanguinaria canadensis
BONESET OR COMMON THOROUGHWORT:	Eupatorium perfoliatum
COMFREY:	Symphytum officinale
COMMON BURDOCK:	Common-arctium minus
GREAT BURDOCK:	Great-arctium lappa
CATNIP:	Symphytum officinale
DANDELION:	Taraxacum officinale
GARLIC:	Allium sativum
GOLDENSEAL:	Hydrastic canadensis
MAYAPPLE:	Podophyllum peltatum
MILKWEED:	Asclepias syriaca
MISTLETOE:	Phoradendron serotinum
PARTRIDGEBERRY OR SQUAW VINE:	Mitchella repens
PENNYROYAL:	Hedeoma pulegioides
SENNA AMERICAN WILD:	Cassia herbecarpa
SKULLCAP:	Scutellaria lateriflora
SNAKEROOT:	Polygala senega
SPIKENARD:	Aralia racemosa
ST. JOHNS WORT:	Hypericum perforatum
UVA-URSI OR COMMON BEARBERRY:	Arctostaphylos uva-ursi

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WHITE WILLOW:	Salix alba
WILD BLACK CHERRY:	Prunus serotina
WITCH HAZEL:	Hamamelis virginiana
YARROW:	Achillea millefolium
YELLOW ROOT:	Zanthorhiza

CHART XI

TERMINOLOGY

AIR-DRIED: Herbs were placed in bunches and hung to dry. Or they were placed over a large area and dried in the sun, impartial shade, or in total shade.

ANESTHETIC: Partial or entire loss of sensation and feelings.

ANTIBIOTIC: Inhibited or killed bacteria and other microorganisms.

ANTIFUNGAL: Inhibited or prevented the growth of fungi.

ANTI-INFLAMMATORY: Reduced or neutralized infections and diseases that were accompanied by pain, redness, heat, and swelling.

ANTISPASMODIC: Relieved spasms, cramps, or painful tightening of muscles.

ANTISEPTIC: Destructive to germs of disease; prevented decay.

ASTRINGENT: Caused tissue to contract or bind.

BACTERIOSTATIC: Prevented the growth or multiplication of bacteria.

BIENNIAL: Happened once in two years; required two years to complete its life cycle.

BLISTER: To place a poultice on the leg of a horse in order to correct lameness.

BLOOD THINNER: Caused blood to be less consistent, dense or compact and more like thin liquid.

BOILS: Infected skin glands caused by pus producing organisms.

BOWED TENDON: A serious over-stretching of the back of a horse's leg. It allowed the fetlock to hit the ground while walking and the toe of the hoof to leave the ground.

CARBUNCLE: Similar to boils but with multiple openings for discharge of pus and infected tissue beneath the skin.

CARDIOACTIVE: A substance or something that affects the heart.

CATHARTIC: Stimulated evacuation of the bowels; laxative.

CATKIN: Tassel-like, closely clustered, small flowers without petals; found on willow, birch, or poplar trees.

CLUSTER: A number of similar flowers growing or grouped together; a bunch.

COLIC: Acute abdominal pain caused by various abnormal conditions in the bowels.

CONCOCTION: Various ingredients were combined to make a herbal remedy.

CONSTRICTED BLOOD VESSELS: Blood vessels were made smaller, narrower by shrinking, contracting, and compressing.

CONVULSIONS: Violent, involuntary contraction or spasm of the muscles.

CREEPING ROOTS: Roots that grew along and spread over and under the ground.

CRICKS: A muscle cramp in the neck area.

DECIDUOUS: Plants shed leaves annually or the leaves fell off during certain stages of growth.

DECOCTION: A remedy made by boiling different plant parts.

DENGUE: A disease transmitted by mosquitoes; severe joint and back pain with fever and rash. Also called breakbone fever.

DIAPHORETIC: A medicinal plant that produced or increased perspiration or sweating.

DISPENSATORY OF UNITED STATES: A handbook on the preparation and use of medicines in the United States.

DIURETIC: Increased the secretion and flow of urine.

DOCTRINE OF SIGNATURES: Based upon beliefs, teachings, theories that plants represented or looked like certain parts of the body; hence, plants were used medicinally for that part.

EDIBLE: Anything fit to be eaten; non poisonous.

EMETIC: Something that induces vomiting.

FLOWERS:
ANTHERS: Tip of stamen that had pollen.
STAMENS: The pollen-bore anthers with attached filaments.

FOLK REMEDY: Traditional beliefs, legends, customs, and medicines that were made and handed down among the common people.

FOMENTATION: Bodily pain or injury was treated by the application of warm, moist liquid substances or compresses.

GASTROINTESTINAL: Inflammation of the stomach lining and intestines.

GLYCOSIDES: Substances that cause abnormal conditions in tissues.

HEAT EXHAUSTION: Characterized by low body temperature, hot dry skin, and no perspiration.

HERBACEOUS: Non-woody plants that die back to the ground each winter.

HEMORRHAGING: Bleeding, especially heavy flow; broken blood vessels that allowed escape of blood.

HERB: Any plant part used as a medicine, seasoning, or food.

HERBICIDAL: A substance used to destroy or slow down growth.

HOG FAT: Another name for lard. During butchering of hogs, the fat was boiled and strained. It was then used for salves, cooking, and other uses.

HOOSIERS: A native or inhabitant of Indiana; a nickname.

HUMUS: Organic soil that resulted from partial decay of leaves and other vegetable matter.

INFUSION: The plant was steeped or soaked in cold or hot water to make a tea.

IMMUNE-SYSTEM: The body's system that protected it against something disagreeable or harmful such as certain diseases.

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INSECTICIDE: Any substance used to kill or ward off insects.

INTOXICATING: Great excitement; in medicine a poisoning or becoming poisoned.

KINNIKINNIK: A mixture of dried leaves and bark that was smoked by the Native Americans.

LARD: Hog fat that has been "rendered" or boiled down. Was used many different ways.

LEAVES:

BRACTS: The grouping of leaf-like structures into an arrangement usually small and found at base of flowers.
LANCE-SHAPED: The leaves are several times longer than wide.
LOBED: Rounded divisions of leaves.
OVAL: Broad, round leaves; widest part near base.
SERRATED: Saw-like notches along the edge of leaves.
TOOTHED: The edges were notched or wavy.
WAVY: The leaves had curves, ridges, crests and hollows that gave the appearance of wells on the leaf surface.

MEDICINAL: A substance or remedy that cured, healed or relieved.

NATIONAL FORMULARY: A book listing medicines with their formulas and directions for compounding them.

ORALLY: Something taken by mouth.

PARASITE: A plant or animal that lives on or within another organism; it derives sustenance without making compensation.

PARTURITION: The act of giving birth; bringing forth young.

PASTE: Pounding or grounding plant parts until fine and then making the substance or remedy creamy.

PERENNIAL: Having a life cycle of more than two years; perpetual, returned or become active again.

PLANT: A herb, tree, or shrub that makes its food by photosynthesis.

PLASTER: A medicinal preparation that was spread on

skins, cloths, or leaves then placed on the body where it hardened as it dried.

POULTICE: A soft, moist mixture that was applied to a sore or inflamed part of the body.

POWDERED: Any dry, fine, dust-like, substance that was produced by crushing, pounding, or grinding.

PULVERIZED: To break down a plant completely by crushing, grinding, or pounding.

PUNGENT: Something that produced a sharp sensation of taste and or smell.

PURGE: In medicine to empty the bowels or to cause the bowels to become clean, clear, or pure.

PURIFIER: To rid the body of undesirable materials, or foreign matter.

ROOT TEA: A beverage made by steeping, boiling or soaking, plant roots, leaves, or stems.

SALVE: A healing substance applied to a wound. The Native Americans prepared salves by mixing and blending powdered herbs with types of animal fat or beeswax and then cooking this mixture for a couple of hours.

SEDATIVE: In medicine, to soothe or quiet or lessen excitement, irritation, or pain.

SHRUB: A bushy, woody plant with several permanent stems instead of a single trunk.

STEEPED: To soak in a liquid. A small amount of herbs and placed the herbs were placed in a small amount of water; this was allowed to soak for a few minutes.

STIFFLED: A serious injury to the back of the horse's leg; a tendon was over-stretched.

STIMULANT: A drug or substance that increases the activity of some vital process of some organ of the body.

TANNIN: An acid substance used for curing leathers, in preparing

dyes, and for medicinal purposes.

THRUSH: A hoof condition in horses where the inside of the hoof begins to rot. Caused by being stalled in the wintertime.

TONIC: A medicine that invigorates or stimulates.

TOXIC: Various poisons secreted by plants and animals

TOXICITY: The quality or degree a plant is poisonous.

TRANSLUCENT: Light shined through but other side cannot be distinguished.

TRANQUILIZER: A substance that caused a state of calmness, peacefulness, and serenity.

TREATMENT: An act, manner, or method of caring for a person.

UPSET STOMACH: A problem within the digestive system which was caused by germs or something a person had eaten.

US PHARMACOPOEIA: An official book with a list of drugs, medicines, and a description of their properties, preparation, and use.

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